

NAME: \_\_\_\_\_

**ASSESSMENT OF MINING PROPERTIES  
SELF-STUDY SESSION  
REVIEW QUESTIONS**

1. The study of mineral deposits falls under the branch categorized as economic geology.  
 True  
 False
  
2. To be classified as a mineral, a substance must be the product of nature and not the result of a laboratory process.  
 True  
 False
  
3. Ore deposits are typically discontinuous pockets that can be \_\_\_\_\_ and \_\_\_\_\_ to find.
  
4. There are mines located in every California county.  
 True  
 False
  
5. In valuing mining properties, the appraiser should consider the \_\_\_\_\_ appropriate to mining operations.
  
6. What are the major differences between mineral properties and other property types [mark all that apply]?  
 There are never buildings on mineral properties.  
 There are no hazards involved with mining properties.  
 The location of mineral deposits is controlled by nature, not by man.  
 Mineral properties are income producing properties.
  
7. Sometimes minerals compete with each other. One mineral may be substituted for another because of price or other advantages, thereby impacting the supply and ultimately the price for both.  
 True  
 False

8. The relationship between commodity prices and national and/or world events is a very common phenomenon and one that is especially important to appraisers.

True

False

9. The terms "mineral rights" and "mining rights" as described in Section 607.5 include the right to enter in or upon the land for the \_\_\_\_\_

and \_\_\_\_\_ of minerals including oil, gas, and other hydrocarbons.

10. Mineral rights carry an implied right of entry for the purpose of extracting minerals.

True

False

11. A lease agreement expresses the intent of the parties involved and each is unique. Match the definition to things that an appraiser should particularly look for in such agreements.

1	Time
2	Restrictions
3	Lease Area
4	Royalty Payment Provisions

	May include a boundary map or legal description, annual rental fees, payments to surface owner for right of trespass, etc.
	Determines when the lease begins and ends, and renewal options.
	May obligate the mineral operator to restoration of the land, or mining only during certain hours, or to comply with certain noise restrictions, etc.
	Establishes minimum royalty payments regardless of quantity mined and provides for future escalation of royalties either through consumer price index fluctuations, producer price index fluctuations, or some other method.

12. In the United States, a royalty is a reservation to the lessor of a certain percentage of the minerals or their proceeds at no cost to the lessor.

True

False

13. The royalty is a separately assessable mineral interest for property tax purposes.

True

False

14. Rule 469(b)(2) states "It is the right to explore, develop and produce that is being valued and not the physical quantity of resource present on the valuation date." The value of these rights is best determined by \_\_\_\_\_ and \_\_\_\_\_ the quantity of reserves that can be \_\_\_\_\_ from the property.
15. The major asset of a mining property, resources, is often something that cannot be seen because it is hidden below the surface of the earth.
- True
- False
16. If a reserve does not have a reasonable certainty of being recoverable in the future, "taking into account reasonably projected physical and economic operating conditions," it may be assessed.
- True
- False
17. In valuing mineral properties, an appraiser must project in the cash flow the actual operating characteristics of the property, using the \_\_\_\_\_
18. When necessary, to analyze the accounting records of a complex mining property, who should appraisers enlist the aid of [mark all that apply]?
- An attorney
- A certified public accountant
- An auditor-appraiser
- The mine operator
- A professional tax preparer
19. Because the cost approach is used almost exclusively for the appraisal of mineral producing properties, the occasional assessor's audit of income and expenses is extremely important.
- True
- False
20. Financial analysis of a mineral property should begin with [mark all that apply]?
- General ledger
- Chart of accounts
- Company annual reports
- All of the above

21. The appraiser should also distinguish between recurring expenses and non-recurring expenses, particularly when using current expenses as a guide for future cash flows.
- True
- False
22. Although financial accounting practices are designed for purposes other than property appraisal, nevertheless such reports often yield important information that should be considered by the appraiser.
- True
- False
23. Rule 469 provides that "while the assessor has full discretion to select the appropriate appraisal method, the sales comparison approach will generally be the most relevant appraisal method employed in establishing a value for the total property.
- True
- False
24. The concept of risk involves which of the following [mark all that apply]?
- Uncertainty
- Risk
- Probability
- Outcome
- All of the above
25. The income approach is the appraisal method best suited for the total property valuation of mineral producing properties in the absence of a suitable arm's length sale.
- True
- False
26. The final value using the income approach does not include everything that contributes to income.
- True
- False
27. A holder of a mineral lease is considered to have the equivalent of a fee interest which means the lessor's property right is valued as though he owned the mineral right in fee.
- True
- False

28. The appraisal unit is defined as:
- Undivided fractional interests in real property
  - That property which persons in the market place normally buy and sell as a unit or which is normally valued separately
  - Individual parcel only
  - That property which includes land and fixtures only
29. Appraisers of mineral properties should keep in touch with business news sources and become familiar with the applicable reference sources available at the public library.
- True
  - False
30. If the production of proved reserves on the property is the same each year, the appraiser can determine the economic life by:
- Dividing annual production into proved reserves
  - Dividing future anticipated production into proved reserves
  - Dividing the price of the mineral into future anticipated production
  - Dividing total annual operating costs into annual production
  - Dividing working capital into future anticipated reserves
31. For property tax purposes, working capital is the amount of cash needed to meet capital expenses and maintain minimum bank balances during the period expenditures have been made but revenues not yet received.
- True
  - False
32. Rule 8(e) states that when income from operating a property is used to estimate value, sufficient income shall be excluded to provide for a return on working capital and other nontaxable operating assets.
- True
  - False
33. The term *residual technique* simply means a technique of appraisal where the value of the mineral rights is residual to all other components of value.
- True
  - False

34. When there is no practical way of appraising the mineral right directly, appraisers use which technique?
- Royalty technique
  - Cost approach
  - Sales comparison approach
  - Residual technique
35. The royalty appraisal technique is a commonly accepted procedure useful as an indicator for an operation of any size. The technique is a form of the cost approach to value.
- True
  - False
36. The State Board of Equalization has developed which of the following reporting forms for mining properties [Mark all that apply]?
- Aggregate Production Report
  - Anticipated Reserves Report
  - Mining Claim Production Report
  - Mining Production Report
  - All of the above
37. Revenue and Taxation Code sections and substantial case law expressly state that the assessor has the right to any information that is germane to the appraisal.
- True
  - False
38. The value of buffer zone land is included in the total property value if buffer zone land is needed to operate the property safely.
- True
  - False
39. Land improvements generally consist of on-site physical alterations, off-site modifications, and miscellaneous improvements to land.
- True
  - False

40. The factored historical cost method is especially useful in the valuation of land improvements since in-place costs may be influenced by [Mark all that apply]:
- Terrain
  - Topsoil conditions
  - Non-apparent subsurface conditions
  - Location
  - Reserves
  - Subsoil conditions
  - All of the above
41. Failure to recognize the functional obsolescence of the mining facility can lead to improper allocation of the value and result in improper assessments.
- True
  - False
42. For assessment purposes, fixed machinery and equipment are classified as fixtures.
- True
  - False
43. The factored historical cost method commonly offers a \_\_\_\_\_ and approach to the valuation of fixed machinery and equipment for tax purposes.
44. Why should the value of licensed vehicles not be included in the total appraisal value of the mineral property?
- Licensed vehicles are not real property
  - Licensed vehicles have already been taxed
  - Licensed vehicles add no value to a mineral property
  - Licensed vehicles are included in the total appraisal value
45. Depreciation for property tax purposes means a loss in value from all causes, i.e., the difference between replacement cost new and present value. It can take the form of:
- Economic obsolescence
  - Functional obsolescence
  - Physical deterioration
  - All of the above

46. Economic (sometimes called external) obsolescence is usually a curable defect caused by negative influences external to the mining site.
- True
- False
47. Appraisers may use their judgment in determining observed depreciation.
- True
- False
48. If depreciation is significantly greater or less than normal, the appraiser must estimate the amount and make proper adjustments to \_\_\_\_\_  
less \_\_\_\_\_
49. Construction work in progress is taxable at the value of the completed work as of the lien date and should be added to the total value of the property.
- True
- False
50. Rule 469 applies the provisions of Article XIII A to the valuation of mines in all phases of development. It is important to recognize that Rule 469 is a \_\_\_\_\_  
\_\_\_\_\_ rule, and as such, takes precedence over any other rule which may be in conflict.
51. Rule 469(b) provides that the rights to enter upon land for the purpose of exploration, development, or production of mineral are "taxable real property interests to the extent they individually or collectively have ascertainable value."
- True
- False
52. What is the process of searching for and determining the location, quantity, nature, shape, and quality of mineral deposits?
- Exploration
- Development
- Production
- None of the above

53. Exploration expenses that are incurred and do not yield a successful outcome can be written off for tax purposes. Exploration expenses for a mine that eventually goes into production are assumed to be recaptured by the depletion allowance.
- True
- False
54. The lease terms are not important, because the lease defines the expectations of the parties and as such is unnecessary to the valuation of the property in the exploration stage.
- True
- False
55. Generally, the use of the cost approach during the exploration stage is necessary. What would be considered alterations to land [Mark all that apply]?
- Water systems
- Access roads
- Fencing
- All of the above
56. The value of the right to explore remains on the roll until which of the following occurs [Mark all that apply]?
- The property goes into production
- The property is quitclaimed
- There are improvements to the property
- The ownership of the lease is transferred
- All of the above
57. The Board of Equalization decided that while proved reserves can be discovered at almost any time, the valuation of such reserves prior to production is highly speculative due to many uncertainties. Therefore, the startup or commencement of production is the time when most of the speculation and uncertainties have been eliminated and the assessor's determination of the quantity and value of the proved reserves can be reliably ascertained.
- True
- False

58. No separate value determination for the right to develop should be made unless there is new construction. In the absence of such new construction, the value of the right to explore remains on the assessment roll, subject to the annual adjustment for the CPI not to exceed 2 percent.
- True
- False
59. What is the phase point at which the assessor establishes the base year value for the property?
- The completion of reclamation
- The commencement of production
- The start of exploration
- None of the above
60. If a property is owner explored, developed, and produced, the value of the rights to explore and develop will be reflected in the \_\_\_\_\_ of the mineral rights.
61. Proved reserves constitute property that has been produced or physically severed from the land, and is no longer taxable. Since proved reserves usually decrease from year to year because of production, a corresponding adjustment must be made to the mineral right value.
- True
- False
62. New reserves or increases in proved reserves that occur on the property from time to time are additions to the mineral right which must be:
- Ignored
- Subtracted from the value of the property interest
- Taxed separately
- Added to the value of the property interest
63. Changes in physical and economic conditions can result in a reduction in proved reserves for a mineral property. Since they no longer exist, they cannot be credited back to the operator/assessee.
- True
- False

64. Once a value for the property has been estimated, there may be factors that affect the \_\_\_\_\_, in contrast to the \_\_\_\_\_ of the property.
65. Removal of property is also classified as new construction.
- True
- False
66. Section 61(a) governs the transfer of mineral rights exclusively and states that the \_\_\_\_\_ or \_\_\_\_\_ of the right to produce or extract oil, gas, or other minerals, regardless of the period during which the right may be exercised, is a change of ownership.
67. Changes in ownership, whether complete or partial, are subject to supplemental assessment.
- True
- False
68. Supplemental assessment applies whenever new construction resulting from actual physical new construction on the site is completed or changes in ownership occur, on or after July 1, 1993.
- True
- False
69. Under Rule 469(e)(1)(A), additions to proved reserves are valued by:
- Determining the current market value of all of the proved reserves in addition to costs of construction
- Determining the current market value of all of the removed reserves and adjusting for replacements
- Determining the current market value of all of the prior proved reserves less expected reserves
- Determining the current market value of all of the proved reserves less the current market value of proved reserves existing prior to adding new proved reserves
70. The effects of maintenance and repair may be reflected in the market value estimate of the property, but the property retains its original base year value without any addition for the costs of the maintenance and repair.
- True
- False

71. Forecasts of production for mineral properties are generally constrained by two factors, \_\_\_\_\_ and \_\_\_\_\_

72. For any income stream there will be \_\_\_\_\_ and a \_\_\_\_\_

73. In order to arrive at total revenue:

- Multiply the prior year's production by estimated price
- Multiply the production forecast by the product price and sum the revenue streams
- Divide the production forecast by the product price
- Any of the above is an acceptable method

74. Total annual property revenue is determined by multiplying the component of the production stream times the product price for each product and adding the product revenues together.

- True
- False

75. Match the general classification of expenses with the definition.

1	Capital expenses
2	Operating expenses
3	Periodically reoccurring expenses
4	Overhead expenses
5	Other non-reoccurring expenses

	Costs that will occur at regular intervals but not on an annual basis.
	Includes expenses such as reclamation costs and environmental cleanup costs.
	Expenses that will only benefit one period, the one in which they are paid.
	Future investments in equipment and improvements that will generate income for more than one period.
	Costs associated with the property that may not occur on the property.

76. Reclamation expenses are the costs associated with returning the land to a safe environmental condition. Not all mineral properties will have reclamation expenses.

- True
- False

77. Assuming that the property is operated to provide income to the operator, the economic life of the property is the point where the net operating income becomes negative without any potential to return to positive.
- True
- False
78. The final step in the cash flow analysis is the \_\_\_\_\_ of \_\_\_\_\_
79. In a cash flow analysis, the discount rate represents the required return investors need to accept a project.
- True
- False
80. To reach a value conclusion, after the discount rate has been selected and the adjustments for risk made, the appraiser should:
- Discount the net operating income of the property
- Disregard the net operating income of the property
- Compound the net operating income of the property
- None of the above
81. The value determined by the cash flow analysis or other acceptable appraisal methods is an estimate of the current market value of the assessable property.
- True
- False
82. To determine the value of the mineral rights, the estimated value of the active improvements (facilities and equipment) is divided by the total cash flow value.
- True
- False
83. It is the right to explore, develop and produce that is being valued, as well as the physical quantity of resources present on the valuation date.
- True
- False
84. "Exploration" means the searching for and determining the \_\_\_\_\_  
\_\_\_\_\_, and \_\_\_\_\_ of mineral deposits.

85. List the three methods of discount rate estimation discussed in Appendix C:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

86. Discounted cash flow (DCF) analysis is a method by which investors explicitly value future cash flows – typically annual cash flows – over anticipated holding period.

- True  
 False

87. Risk is incorporated into discounted cash flow (DCF) analysis through the discount rate, which includes components for the pure time value of money, inflation, and risk.

- True  
 False

88. Which of the following provides the most direct and supportable market indication of expected discount rates for properties of comparable risk?

- Discount rates properly derived from expected sales transactions  
 Discount rates properly derived from actual sales transactions  
 Both of the above  
 Neither of the above

89. Which of the following best defines production?

- The removal or processing of minerals  
 The preparation of mineral for production  
 The searching for and determining the location, quantity, nature, shape and quality of mineral deposits  
 None of the above

90. A mineral deposit or deposits that have no present economic value because there is no current need for it is considered:

- Reserves  
 Possessory interest  
 Resources  
 Functional obsolescence