

Practice Test 6

Time Allowed: 4 hours

Passing Score: 70% (88 out of 125 questions correct)

Instructions:

- Read each question carefully and select the BEST answer
- Mark your answers on a separate sheet
- You may use a calculator for mathematical calculations
- Answer all questions - there is no penalty for guessing
- Review your answers if time permits

SECTION 1: BUSINESS ORGANIZATION AND LICENSING (Questions 1-16)

1. What is a fictitious business name statement expiration?

- A. 3 years
- B. 5 years from filing date
- C. 10 years
- D. No expiration

2. What happens if DBA is not renewed?

- A. Automatic renewal
- B. Grace period extends indefinitely
- C. No consequences
- D. Statement expires and business cannot sue or enforce contracts using that name

3. What is required when business ownership changes?

- A. File new DBA statement and publish
- B. Notify by phone
- C. Email notification
- D. No filing required

4. What is the CSLB complaint process?

- A. Phone call only
- B. Email sufficient
- C. Verbal report
- D. No formal process

5. What can result from CSLB complaints?

- A. Nothing happens
- B. Investigation, mediation, arbitration, or disciplinary action
- C. Automatic license revocation
- D. Immediate suspension

6. What is arbitration award enforcement?

- A. Voluntary compliance only
- B. Cannot be enforced
- C. Informal agreement
- D. Awards can be converted to court judgments and enforced like court orders

7. What is the maximum CSLB arbitration award?

- A. \$15,000 per dispute
- B. \$5,000
- C. \$50,000
- D. \$100,000

8. What is required contractor continuing education in other states?

- A. All states require CE
- B. No states require CE
- C. Some states require continuing education for license renewal (varies by state)
- D. Only California requires CE

9. What is license portability between states?

- A. All licenses transferable
- B. No portability exists—most states require separate licensing and examinations
- C. Automatic acceptance
- D. Federal license covers all

10. What is disciplinary disclosure requirement?

- A. Discipline is private
- B. No disclosure needed
- C. Hidden from public
- D. Contractors must disclose license discipline to consumers on contracts

11. What is the penalty for failing to disclose discipline?

- A. Additional disciplinary action and consumer protection violations
- B. No penalty
- C. Warning only
- D. Small fine

12. What is inactive license reactivation process?

- A. Automatic reactivation
- B. Phone call sufficient
- C. Replace qualifying individual and meet current requirements
- D. No process needed

13. What is license history verification for consumers?

- A. Not available
- B. Check CSLB website or call for license status, discipline, and bonds
- C. Secret information
- D. Private records

14. What is the role of qualifying individuals in corporations?

- A. Financial officer only
- B. Secretary role
- C. Tax preparer
- D. Accountant

15. What is required when adding new classifications?

- A. Meet experience requirements and pass exams for additional classifications
- B. No requirements
- C. Automatic approval
- D. Pay fee only

16. What is classification change process?

- A. Phone request
- B. Email notification
- C. Application with experience proof and possibly exams for new classifications
- D. Automatic change

SECTION 2: BUSINESS FINANCES (Questions 17-35)

17. What is the purpose of accrual basis accounting?

- A. Cash tracking only
- B. Matching revenue with expenses in periods earned/incurred regardless of payment
- C. Tax filing only
- D. Bank reconciliation

18. What is the difference between accrual and cash basis for taxes?

- A. No difference
- B. Same method required
- C. Equal results

D. Accrual recognizes income when earned; cash when received (timing differences)

19. What is percentage of completion accounting?

A. Recognizing revenue proportionally as work progresses rather than at completion

B. Final recognition only

C. No revenue until complete

D. Cash basis only

20. What is completed contract method?

A. Recognizing revenue at contract signing

B. Monthly recognition

C. Recognizing revenue and expenses only when projects are complete

D. Daily recognition

21. What is the advantage of percentage of completion?

A. Simpler accounting

B. Matches revenue with effort and shows financial position more accurately

C. Lower taxes always

D. Less paperwork

22. What is work-in-progress (WIP) schedule?

A. Employee schedule

B. Equipment list

C. Supplier list

D. Report showing projects in progress with costs and billings

23. What is overbilling in construction accounting?

- A. Billing errors
- B. Fraud
- C. Illegal practice
- D. Billing ahead of work completion

24. What is underbilling?

- A. Billing mistakes
- B. Fraud
- C. Work completed exceeds amounts billed (contractor owed money)
- D. Illegal practice

25. What is cost-to-cost method?

- A. Pricing strategy
- B. Calculating percent complete by comparing costs incurred to total estimated costs
- C. Billing method
- D. Payment terms

26. What is earned revenue in construction?

- A. Cash received
- B. Invoiced amounts
- C. Contract price

D. Revenue recognized based on percentage of work completed

27. What is billings in excess of costs?

- A. Profit
- B. Loss
- C. Break-even
- D. Liability

28. What is costs in excess of billings?

- A. Liability
- B. Loss
- C. Asset (unbilled receivable—work done but not yet billed)
- D. Equity

29. What is retention receivable?

- A. Customer deposits
- B. Amounts withheld from progress payments due at completion
- C. Prepayments
- D. Advances

30. What is mobilization cost treatment?

- A. Immediate expense
- B. Overhead
- C. Indirect cost

D. Capitalized and amortized over project or recognized with revenue

31. What is bonding capacity calculation?

A. Fixed amount

B. Primarily based on working capital, equity, backlog, and financial strength

C. Revenue only

D. Random determination

32. What increases bonding capacity?

A. High debt

B. Losses

C. Strong working capital, profitability, and equity

D. Low revenue

33. What decreases bonding capacity?

A. Profits

B. Losses, high leverage, weak working capital, and poor performance

C. Strong equity

D. Low debt

34. What is prequalification for bonding?

A. After project award

B. Informal inquiry

C. Optional process

D. Process where contractors prove financial capacity before bidding

35. What is required for prequalification?

A. Financial statements, experience, references, and bonding capacity verification

B. Resume only

C. Business card

D. Verbal statement

SECTION 3: EMPLOYMENT REQUIREMENTS (Questions 36-60)

36. What is the California Fair Employment and Housing Act (FEHA)?

A. Federal law

B. Building code

C. State law prohibiting employment discrimination broader than federal laws

D. Voluntary guideline

37. What protected classes does FEHA cover?

A. Age only

B. Race only

C. Age, race, religion, sex, gender, sexual orientation, marital status, disability, and more

D. No protections

38. What is the difference between FEHA and federal discrimination laws?

A. No difference

- B. FEHA applies to employers with 5+ employees; federal often requires 15+
- C. Same thresholds
- D. FEHA is narrower

39. What is required when employees request religious accommodations?

- A. Automatically deny
- B. Ignore request
- C. No obligation
- D. Refuse without consideration

40. What are reasonable religious accommodations?

- A. Unlimited accommodations required
- B. Any request must be granted
- C. Flexible scheduling, dress code exceptions, prayer breaks (unless undue hardship)
- D. No accommodations required

41. What is pregnancy accommodation requirement in California?

- A. No accommodations required
- B. Reasonable accommodations for pregnancy, childbirth, and related conditions
- C. Termination allowed
- D. Demotion permitted

42. What is the California Pregnancy Disability Leave duration?

- A. 2 weeks

- B. 6 weeks
- C. 1 month
- D. Up to 4 months for pregnancy disability

43. What is lactation accommodation requirement?

- A. Reasonable break time and private location for expressing milk
- B. No accommodations
- C. Outdoor location acceptable
- D. Bathroom sufficient

44. What must lactation accommodation space include?

- A. Close to workspace, not bathroom, with privacy
- B. Any location
- C. Shared space
- D. No requirements

45. What is prohibited regarding lactation accommodation?

- A. Providing accommodations
- B. Retaliation against employees for requesting or using lactation breaks
- C. Allowing breaks
- D. Privacy

46. What is harassment versus discrimination?

- A. Same conduct

- B. No difference
- C. Identical definitions
- D. Cost only

47. What is sexual harassment types?

- A. Quid pro quo (tangible employment action for sexual favors) and hostile environment
- B. One type only
- C. No categories
- D. Three types

48. What is hostile work environment?

- A. Strict management
- B. High expectations
- C. Severe or pervasive unwelcome conduct creating intimidating or offensive environment
- D. Performance standards

49. What is employer liability for supervisor harassment?

- A. No liability
- B. Employees liable only
- C. Strict liability for supervisor harassment resulting in tangible employment action
- D. Never liable

50. What is employer liability for co-worker harassment?

- A. Automatic liability

- B. Strict liability
- C. Always liable
- D. Liable if knew or should have known and failed to take corrective action

51. What is required harassment training in California?

- A. Supervisors: 2 hours every 2 years; employees: 1 hour every 2 years (5+ employees)
- B. No training required
- C. Annual training
- D. Monthly training

52. What must harassment training cover?

- A. Nothing specific
- B. General topics only
- C. Definitions, examples, prevention, reporting, investigation, and remedies
- D. History only

53. What is bystander intervention training?

- A. Not required
- B. Training employees to recognize and intervene in harassment situations
- C. Supervisor-only training
- D. Optional content

54. What is required when harassment complaints are received?

- A. Ignore complaints

- B. Informal discussion only
- C. Wait and see
- D. Immediate investigation with documentation and appropriate action

55. What is retaliation prohibition?

- A. Retaliation allowed
- B. Permitted for good cause
- C. Acceptable response
- D. Legal if justified

56. What are examples of retaliation?

- A. Proper management
- B. Fair treatment
- C. Termination, demotion, pay reduction, poor assignments, or hostility after complaints
- D. Legitimate discipline

57. What is at-will employment disclaimer in handbooks?

- A. Required statement
- B. Statement preserving employer's right to terminate without cause (except illegal reasons)
- C. Unnecessary clause
- D. Prohibited language

58. What invalidates at-will employment?

- A. Nothing can change it

- B. Always remains
- C. Permanent status
- D. Employment contracts, union agreements, or implied contracts from handbooks/policies

59. What is the importance of handbook disclaimers?

- A. No importance
- B. Unnecessary
- C. Optional
- D. Prevent enforcement

60. What is required handbook acknowledgment?

- A. Verbal confirmation
- B. No acknowledgment needed
- C. Written signed acknowledgment of receipt and understanding
- D. Email sufficient

SECTION 4: INSURANCE AND LIENS (Questions 61-75)

61. What is the purpose of pollution liability insurance?

- A. General liability covers it
- B. Not needed
- C. Property insurance
- D. Covering environmental contamination and cleanup costs

62. What is contractor's pollution liability (CPL)?

- A. General liability extension
- B. Property insurance
- C. Auto coverage
- D. Hazardous waste cleanup

63. What is hired and non-owned auto coverage purpose?

- A. Company-owned vehicles
- B. Employee personal vehicles
- C. Leased vehicles only
- D. Covering employee-owned vehicles

64. What is garage liability insurance?

- A. Property insurance
- B. Coverage for automotive businesses (dealers, repair shops, parking)
- C. General liability
- D. Building insurance

65. What is tool and equipment insurance?

- A. Property insurance
- B. General liability
- C. Workers' comp
- D. Theft coverage only

66. What is inland marine insurance?

- A. Ocean cargo only
- B. Boats only
- C. Water transport
- D. Covering tools, equipment, and materials being transported or at job sites

67. What is builder's risk deductible structure?

- A. No deductibles
- B. Small deductibles only
- C. Per occurrence deductibles (often higher for wind/hail)
- D. Aggregate only

68. What is soft costs coverage in builder's risk?

- A. Material costs
- B. Additional expenses from delays (loan interest, lost rent, taxes)
- C. Labor costs
- D. Equipment costs

69. What is the difference between builder's risk and general liability?

- A. Same coverage
- B. No difference
- C. Cost only
- D. Interchangeable

70. What is installation floater insurance?

- A. Property insurance
- B. Covering materials and equipment during installation before acceptance
- C. General liability
- D. Auto insurance

71. What is the effect of filing mechanics lien on credit?

- A. No effect
- B. Improves credit
- C. May appear on credit reports affecting contractors' creditworthiness
- D. Hidden from reports

72. What is lien release tracking importance?

- A. Not important
- B. Ensuring all liens released for clear title and final payment
- C. Optional practice
- D. Unnecessary step

73. What is conditional final lien waiver risk?

- A. No risk
- B. Safe to provide anytime
- C. Lower risk than unconditional
- D. Provides protection

74. What is unconditional final lien waiver risk?

- A. No risk
- B. Completely safe
- C. Lower risk
- D. Should only be provided after payment clears (permanently waives all rights)

75. What is partial unconditional lien waiver?

- A. Full waiver
- B. Waives all rights
- C. Releases lien rights for specified amount of progress payment received
- D. Conditional waiver

SECTION 5: CONTRACT REQUIREMENTS AND EXECUTION (Questions 76-101)

76. What is a cost-plus contract?

- A. Fixed price
- B. Lump sum
- C. Contractor reimbursed for costs plus fee or percentage
- D. Unit price

77. What is the risk allocation in cost-plus contracts?

- A. All risk on contractor
- B. Owner bears cost risk; contractor bears performance risk
- C. Equal risk
- D. No risk

78. What is guaranteed maximum price (GMP)?

- A. Fixed price
- B. Lump sum
- C. Unit price
- D. Cost-plus with upper limit (owner pays costs up to maximum)

79. What happens if GMP is exceeded?

- A. Owner pays excess
- B. Contractor absorbs cost overruns above GMP
- C. Split equally
- D. Project stops

80. What is target price incentive?

- A. Fixed price
- B. Lump sum
- C. Shared savings/overruns around target price
- D. Cost-plus

81. What is open book accounting in contracts?

- A. Public records
- B. No financial disclosure
- C. Secret books
- D. Hidden finances

82. What is the owner's audit rights in cost-plus contracts?

- A. No audit rights
- B. Limited review
- C. Informal review
- D. Right to audit contractor's books verifying costs

83. What is allowance in construction contracts?

- A. Fixed cost
- B. Budget item for undefined work (owner selects, contractor installs)
- C. Change order
- D. Contingency

84. What is contingency in contracts?

- A. Allowance
- B. Change order fund
- C. Budget reserve for unforeseen conditions (not scope changes)
- D. Fixed cost

85. What is the difference between allowance and contingency?

- A. Allowances for owner selections; contingencies for unforeseen conditions
- B. Same item
- C. No difference
- D. Identical purpose

86. What is construction management at-risk?

- A. General contracting
- B. Design-build
- C. Consulting only
- D. CM guarantees maximum price and acts like general contractor

87. What is construction management agency?

- A. At-risk CM
- B. Design-build entity
- C. General contractor
- D. Rental agency

88. What is design-build project delivery?

- A. Traditional method
- B. Owner designs
- C. Single entity provides both design and construction services
- D. Separate contracts

89. What is design-build advantage?

- A. More expensive always
- B. Slower delivery
- C. More disputes
- D. Less coordination

90. What is integrated project delivery (IPD)?

- A. Traditional delivery
- B. Design-build
- C. Construction management
- D. Collaborative approach with owner, designer, and contractor sharing risk/reward

91. What is early contractor involvement benefit?

- A. No benefits
- B. Constructability input during design improving efficiency and reducing conflicts
- C. Higher costs
- D. More disputes

92. What is value engineering?

- A. Reducing quality
- B. Cutting corners
- C. Systematic review to reduce costs while maintaining function and quality
- D. Eliminating features

93. What is life-cycle cost analysis?

- A. Construction cost only
- B. First cost focus
- C. Evaluating total ownership costs (construction + operations + maintenance + replacement)
- D. Ignoring operating costs

94. What is fast-track construction?

- A. Rushing work
- B. Poor quality
- C. Dangerous practice
- D. Compressed approach

95. What is phased construction?

- A. All work simultaneous
- B. Single phase
- C. Building in stages allowing early occupancy or spreading costs
- D. Delayed start

96. What is bid alternate?

- A. Change order
- B. Optional scope item with separate pricing allowing owner choice
- C. Required work
- D. Allowance

97. What is unit price bidding?

- A. Lump sum
- B. Fixed price
- C. Cost-plus
- D. Guaranteed maximum

98. What is schedule of values?

- A. Budget breakdown allocating contract amount across work phases for progress billing
- B. Payment schedule
- C. Milestone list
- D. Calendar

99. What is front-loading schedule of values?

- A. Balanced allocation
- B. Even distribution
- C. Back-loading values
- D. Fair pricing

100. What is retainage reduction provisions?

- A. No reduction allowed
- B. Reducing retainage percentage as projects progress or reach milestones
- C. Increasing retainage
- D. Eliminating retainage

101. What is early release of retainage benefit?

- A. No benefits
- B. Improves contractor cash flow reducing financing costs
- C. Harms owner
- D. Increases risk

SECTION 6: PUBLIC WORKS (Questions 102-107)

102. What is the Public Contract Code?

- A. Building code
- B. Safety code
- C. Environmental code
- D. State law governing public works contracts, bidding, and performance

103. What is required in public works bid documents?

- A. Minimal information
- B. General descriptions
- C. Verbal specifications
- D. No requirements

104. What is bid protest procedure?

- A. Informal complaints
- B. No process exists
- C. Formal process for challenging bid awards with specified deadlines
- D. Verbal objections

105. What is the bid protest deadline typically?

- A. Anytime
- B. Within 5-10 days of bid opening or award
- C. One year

D. 30 days

106. What must bid protests include?

- A. Verbal complaint
- B. General dissatisfaction
- C. Vague concerns
- D. No documentation

107. What remedies are available from successful bid protests?

- A. No remedies
- B. Rebidding project, disqualifying non-compliant bidder, or awarding to protester
- C. Monetary damages only
- D. Apology only

SECTION 7: SAFETY (Questions 108-125)

108. What is required for powered industrial truck operation?

- A. No training
- B. Any employee can operate
- C. Certification and training specific to truck type and workplace
- D. Driver's license sufficient

109. What is forklift operator certification renewal?

- A. One-time certification

- B. Recertification every 3 years or after accidents/unsafe operation
- C. Annual renewal
- D. No renewal needed

110. What is required scissor lift training?

- A. No training required
- B. Forklift training sufficient
- C. General equipment training
- D. Specific training on scissor lift operation and fall protection

111. What is aerial lift fall protection requirement?

- A. Full body harness and lanyard attached to boom or bucket
- B. No fall protection needed
- C. Guardrails sufficient
- D. Safety nets required

112. What is the prohibition on climbing or sitting on aerial lift rails?

- A. Allowed with training
- B. Permitted if careful
- C. Prohibited—workers must stay inside basket with fall protection
- D. Acceptable practice

113. What is required crane operator certification?

- A. No certification required

- B. Third-party certification by accredited organization for crane type and capacity
- C. In-house training sufficient
- D. Manufacturer training adequate

114. What is crane load chart importance?

- A. Suggestions only
- B. Optional guidance
- C. General reference
- D. Exceeding capacity causes catastrophic failure

115. What is required before crane operation?

- A. Nothing required
- B. Visual inspection and documentation of crane and rigging
- C. Warm up only
- D. No checks needed

116. What is qualified rigger requirement?

- A. Anyone can rig
- B. No training required
- C. Trained person who demonstrates rigging knowledge and selects proper equipment
- D. Operator decides

117. What is signal person role in crane operations?

- A. Optional position

- B. Dedicated person providing directions to operator when operator's view is obstructed
- C. Backup operator
- D. Documentation role

118. What is required when working near power lines?

- A. No restrictions
- B. Maintain minimum clearance distances or de-energize lines
- C. Extra caution sufficient
- D. Visual awareness adequate

119. What is the minimum clearance for cranes near power lines (50kV)?

- A. 10 feet minimum clearance depending on voltage (often 10-20 feet)
- B. 3 feet
- C. 6 feet
- D. 15 feet

120. What is required for excavations adjacent to structures?

- A. No precautions
- B. Dig carefully
- C. Support systems for structures preventing movement or collapse
- D. Monitor only

121. What is sloping requirement for excavations?

- A. Vertical cuts allowed

- B. Slope based on soil type (ranging from 1.5:1 to 3/4:1 horizontal:vertical)
- C. Any slope acceptable
- D. 45 degrees always

122. What is competent person inspection frequency for excavations?

- A. Weekly
- B. Monthly
- C. Once at start
- D. Daily before work and after conditions change

123. What is required means of egress for excavations?

- A. None required
- B. Ladders or ramps within 25 feet of workers in excavations 4+ feet deep
- C. Any exit method
- D. Rope sufficient

124. What is protective system options for trenches?

- A. One option only
- B. Two choices
- C. Sloping, shoring, or shielding (trench box)
- D. No protection needed

125. What is aluminum hydraulic shoring advantage?

- A. Permanent installation

B. Lightweight, adjustable, and quick to install/remove

C. Cheapest option

D. Strongest system

Answer Key With Explanations

- 1. B** - Fictitious Business Name (DBA) statements expire 5 years from filing date in California. Businesses must file renewal statements before expiration to maintain legal use of fictitious names. The 5-year period ensures current information is on file. Track expiration dates carefully—expired DBAs prevent enforcing contracts.
- 2. D** - When DBA statements expire without renewal, businesses cannot sue to enforce contracts or maintain lawsuits using fictitious names. Courts dismiss cases where plaintiffs haven't maintained current DBAs. This protects parties from dealing with businesses operating under unregistered names. Renew DBAs timely to preserve legal rights.
- 3. A** - When business ownership changes (new partners, sold, reorganized), new DBA statements must be filed with county clerks and published once weekly for four consecutive weeks. Ownership changes require new filings ensuring current ownership is publicly disclosed. The publication requirement notifies public of ownership changes.
- 4. D** - CSLB complaint process requires written complaints (online, mail, or in-person) with supporting documentation. Complaints must include contractor information, description of issues, dates, amounts, and efforts to resolve. CSLB investigates complaints, attempts resolution, and takes disciplinary action when appropriate. Formal written complaints are required.
- 5. B** - CSLB complaints can result in investigation of allegations, mediation between parties, voluntary arbitration (up to \$15,000), formal disciplinary action (citations, suspension, revocation), or orders to complete work or pay restitution. Outcomes depend on violation severity and consumer harm. CSLB protects consumers through multiple enforcement mechanisms.
- 6. D** - CSLB arbitration awards are binding and enforceable. Winners can convert awards to court judgments and enforce them like any court order including wage garnishment, liens on property, and bank levies. Arbitration awards have same enforcement power as court judgments once confirmed. Losing parties must pay awards.
- 7. A** - CSLB arbitration program handles disputes up to \$15,000 maximum per case. Larger disputes must go to court or private arbitration. The \$15,000 limit allows efficient resolution of most consumer-contractor disputes without court litigation. Parties can arbitrate multiple \$15,000 claims from same project separately.
- 8. C** - Many states require continuing education for contractor license renewal (typically 4-16 hours every 1-2 years). Requirements vary widely by state covering topics like code changes, safety, business management, and industry updates. California doesn't currently require general continuing education but some specialty certifications do. Check specific state requirements.
- 9. B** - Contractor license portability between states is very limited. Most states require separate licensing, examinations, experience verification, and fees. A few states have limited reciprocity for specific licenses but it's rare. California has no reciprocity—contractors licensed elsewhere must meet full California requirements including exams.

10. D - California requires contractors to disclose license discipline to consumers in contracts for home improvement work over \$500. Disclosure must include description of discipline and dates. This transparency helps consumers make informed hiring decisions. Failure to disclose discipline violates law and can result in additional discipline.

11. A - Failing to disclose required license discipline results in additional disciplinary action (violations of disclosure laws), consumer protection violations, potential contract voidability, and civil penalties. CSLB takes non-disclosure seriously as it deceives consumers. Always disclose discipline as required—hiding it compounds problems.

12. C - Reactivating inactive licenses requires replacing qualifying individuals (RMOs or RMEs), meeting all current licensing requirements (insurance, bond), paying fees, and demonstrating qualifiers are actively involved. If inactive over 5 years, licenses are canceled requiring complete reapplication. Maintain active status avoiding costly reactivation.

13. B - Consumers can verify contractor licenses through CSLB website (cslb.ca.gov) or phone (800-321-CSLB). Verification shows license status, classifications, expiration dates, bond information, disciplinary history, and complaints. This free public service helps consumers hire legitimate licensed contractors. Always verify licenses before hiring.

14. D - Qualifying individuals in corporations (RMOs or RMEs) must actively direct construction operations, supervise work, ensure code compliance, and manage contracts. They're not merely financial officers or paperwork signers—they must genuinely manage construction activities. RMOs are corporate officers; RMEs are employees. Both need meaningful construction involvement.

15. A - Adding new classifications requires documenting experience in the additional classification (typically 4 years journey-level experience), passing additional trade examinations, and paying fees. Simply holding one license doesn't qualify you for other classifications—each requires specific experience and testing. Classifications expand work authorization.

16. C - Changing classifications requires filing applications with CSLB, providing experience documentation for new classifications, passing required examinations for new classifications, and paying fees. You cannot simply switch classifications—new classifications require proving competency through experience and exams. Original classifications remain unless surrendered.

17. B - Accrual accounting matches revenues with expenses in periods when they're earned/incurred regardless of cash timing. This provides more accurate pictures of profitability and financial position than cash accounting which only records cash transactions. Accrual accounting shows economic reality beyond just cash movements.

18. D - Accrual accounting recognizes income when earned (when work is performed) even if payment comes later. Cash accounting recognizes income when cash is received. These timing differences affect taxable income periods. Most construction companies over certain sizes must use accrual for taxes. The difference is when income/expenses are recognized.

19. A - Percentage of completion accounting recognizes revenue and profit proportionally as work progresses rather than waiting until completion. If projects are 60% complete by costs, recognize 60% of total revenue and profit. This method matches revenue with effort providing accurate interim financial statements. It's required for large contractors.

20. C - Completed contract method recognizes all revenue, costs, and profit only when projects are completely finished. No revenue or profit is recognized during construction—everything waits until completion. This method defers income recognition and can distort interim financial statements. It's allowed for smaller contractors or short-term contracts.

21. B - Percentage of completion matches revenue recognition with work progress showing profitability as it's earned, provides accurate financial position during projects, improves financial statement reliability, and enables better performance analysis. However, it requires reliable cost estimates. It's superior to completed contract for showing current financial health.

22. D - Work-in-progress (WIP) schedules report each project's status showing contract amounts, costs incurred to date, estimated costs to complete, billings to date, costs in excess of billings (underbilling), and billings in excess of costs (overbilling). WIP schedules are essential management tools showing project profitability and cash position.

23. D - Overbilling occurs when cumulative billings exceed work completed (creating liability—you owe work or refunds). While providing cash flow benefits, excessive overbilling creates significant liabilities. If projects are 50% complete but 70% billed, you're overbilled 20%. Overbilling must be managed carefully avoiding excessive advance billings.

24. C - Underbilling occurs when work completed exceeds amounts billed (you're owed money for completed unbilled work). Underbilling creates assets (unbilled receivables) but hurts cash flow—you've done work without payment. If projects are 70% complete but only 50% billed, you're underbilled 20%. Bill promptly avoiding excessive underbilling.

25. B - Cost-to-cost method calculates percentage complete by dividing costs incurred to date by total estimated costs. If \$600,000 has been spent on projects estimated at \$1,000,000 total, projects are 60% complete. This method assumes costs correlate with work progress. It's simple and commonly used.

26. D - Earned revenue is revenue recognized based on percentage of work completed (under percentage of completion accounting). If contracts are \$1,000,000 and work is 60% complete, earned revenue is \$600,000 regardless of amounts billed. Earned revenue reflects work accomplished, not billing timing.

27. D - Billings in excess of costs is liability representing advance billings for work not yet performed. If you've billed \$700,000 but costs incurred are \$600,000, billings exceed costs by \$100,000—you owe that work or must refund. It's deferred revenue creating obligation to perform.

28. C - Costs in excess of billings is asset representing completed work not yet billed (unbilled receivables). If costs incurred are \$700,000 but billings are \$600,000, costs exceed billings by \$100,000—you're owed payment for that work. It's receivable you can collect by billing.

29. B - Retention receivable is amounts withheld from progress payments (typically 5-10%) due at project completion. If you've been paid \$900,000 and \$100,000 was withheld as retainage, retention receivable is \$100,000. It's current asset (collectible within a year) though payment is delayed until completion.

30. D - Mobilization costs (moving equipment, temporary facilities, site setup) can be capitalized (recorded as assets) and amortized over project durations, or recognized as costs with corresponding revenue recognition following percentage of completion. Don't expense mobilization costs upfront—match them with revenue. Treatment affects interim profitability.

31. B - Bonding capacity calculations consider working capital (current assets minus current liabilities), net worth/equity, current backlog (work under contract), experience and track record, financial strength, and profitability. Sureties use formulas typically allowing bonding 10-15 times working capital. Strong financials equal higher capacity.

32. C - Bonding capacity increases with strong working capital, profitability generating retained earnings, growing equity from profits, low leverage (debt-to-equity), strong cash flow, and successful project completion history. Improving financial metrics directly increases bonding capacity enabling larger projects. Financial strength drives bonding capacity.

33. B - Bonding capacity decreases with losses reducing equity, high leverage (excessive debt), weak working capital indicating cash problems, large backlog overextending resources, poor performance history showing risk, and negative cash flow. Financial weakness reduces bonding capacity limiting available work. Protect bonding capacity by maintaining financial strength.

34. D - Prequalification is process where contractors prove financial capacity, experience, and bonding ability before bidding. Owners require prequalification ensuring only qualified contractors bid. Contractors submit financial statements, references, project lists, and bonding letters. Prequalification saves everyone time by limiting bids to capable contractors.

35. A - Prequalification requires audited or reviewed financial statements (typically 3 years), experience history with similar project references, bonding capacity letters from sureties, resumes of key personnel, safety records (EMR), and equipment lists. Thorough prequalification documentation proves contractor qualifications. Strong prequalification packages win opportunities.

36. C - The California Fair Employment and Housing Act (FEHA) is state law prohibiting employment discrimination, harassment, and retaliation. FEHA provides broader protections than federal laws covering more protected classes (marital status, gender identity, sexual orientation), applying to smaller employers (5+ versus often 15+ federally), and providing stronger remedies.

37. C - FEHA protects against discrimination based on race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age (40+), sexual orientation, military/veteran status, and more. It's comprehensive anti-discrimination law.

38. B - FEHA applies to employers with 5 or more employees (including part-time), while many federal discrimination laws (Title VII, ADA) require 15+ employees, and ADEA requires 20+ employees.

FEHA's lower threshold protects more California workers. FEHA also provides broader protections in areas like pregnancy, disability, and gender identity.

39. A - Employers must reasonably accommodate sincerely held religious beliefs, practices, and observances unless accommodations create undue hardship. Don't automatically deny religious accommodation requests—engage in interactive process exploring reasonable accommodations. Denying without consideration violates FEHA and may constitute religious discrimination.

40. C - Reasonable religious accommodations include flexible scheduling for religious observances, modified dress codes for religious clothing/grooming, breaks for prayer, and voluntary shift swaps. Accommodations are required unless they cause undue hardship (significant difficulty or expense, compromised safety, or fundamental business disruption). Most religious accommodations don't cause undue hardship.

41. B - California requires reasonable accommodations for pregnancy, childbirth, and related medical conditions including modified duties, elimination of strenuous tasks, more frequent breaks, seating accommodations, and temporary transfers. Pregnant workers have same accommodation rights as disabled workers. Pregnancy discrimination and failure to accommodate violate FEHA.

42. D - California Pregnancy Disability Leave provides up to 4 months leave (16-17 weeks depending on schedule) for actual pregnancy disability including prenatal care, severe morning sickness, bed rest, childbirth recovery, and pregnancy complications. It's medical leave for pregnancy disability—separate from parental bonding leave. Employers with 5+ employees must provide PDL.

43. A - California requires reasonable break time and private non-bathroom location for lactation. Employers must provide breaks each time employee needs to express milk (typically 2-3 times per 8-hour shift). Space must be private, shielded from view, and free from intrusion. Bathrooms aren't adequate—dedicated private space is required.

44. A - Lactation spaces must be in close proximity to employee's work area, not bathrooms (separate private room or space is required), with privacy (door, curtain, or other shield), and free from intrusion. Temporary space is acceptable if it meets requirements. Multi-use space is acceptable if available when needed.

45. B - Employers cannot retaliate against employees for requesting or using lactation accommodations including terminating, demoting, reducing pay, assigning undesirable shifts, or creating hostile environments. Retaliation for asserting lactation rights violates Labor Code. Protect lactation rights—retaliation triggers significant liability.

46. D - Harassment is unwelcome conduct based on protected characteristics creating hostile work environments or involving tangible employment actions (quid pro quo). Discrimination is treating employees differently because of protected characteristics in hiring, firing, pay, or terms of employment. Both violate law but involve different conduct. Harassment creates hostile environments; discrimination treats people unequally.

47. A - Sexual harassment types are: (1) Quid pro quo—demanding sexual favors for tangible employment benefits (hiring, promotion, avoiding termination), and (2) Hostile environment—severe or pervasive unwelcome sexual conduct creating intimidating, hostile, or offensive environments. Both violate Title VII and FEHA. Quid pro quo involves power abuse; hostile environment involves pervasive conduct.

48. C - Hostile work environment is severe or pervasive unwelcome conduct based on protected characteristics that reasonable persons would find hostile, abusive, or intimidating, and which actually affects complainants' ability to work. Isolated incidents (unless severe) don't create hostile environments. Conduct must be objectively and subjectively offensive altering employment conditions.

49. C - Employers have strict (automatic) liability for supervisor harassment resulting in tangible employment actions (termination, demotion, undesirable reassignment). If supervisors harass and take employment actions, employers are liable even without knowledge. For hostile environment without tangible action, employers may have affirmative defense if they had policies and took prompt corrective action.

50. D - Employers are liable for co-worker harassment if they knew or should have known about harassment and failed to take immediate appropriate corrective action. Employers must monitor workplaces, respond to complaints promptly, investigate thoroughly, and remedy harassment. Ignoring or inadequately responding to co-worker harassment creates employer liability.

51. A - California requires employers with 5+ employees to provide sexual harassment prevention training: 2 hours for supervisory employees every 2 years and 1 hour for non-supervisory employees every 2 years. Training must be provided within 6 months of hire or promotion. Refresher training is required every 2 years. Compliance is mandatory.

52. C - Harassment training must cover: definitions of sexual harassment, harassment, and discrimination; examples of conduct constituting harassment; federal and state law prohibitions; prevention, correction, and complaint remedies; supervisor responsibilities; confidentiality protection; and complaint procedures. Training must meet specific content requirements per regulations.

53. B - Bystander intervention training teaches employees to recognize potentially problematic behavior, understand options for intervening safely, and feel empowered to take action preventing harassment. It shifts culture from passive observation to active intervention. California harassment training must include bystander intervention components helping employees address harassment they witness.

54. D - Upon receiving harassment complaints, employers must immediately conduct thorough, impartial investigations documenting interviews, evidence, findings, and conclusions. Take interim protective measures during investigations. If harassment is confirmed, take appropriate corrective action (discipline, separation, training, policy changes). Delayed or inadequate response increases liability.

55. D - Retaliation (adverse action because of protected activity) is prohibited by multiple laws including Title VII, FEHA, OSHA, workers' compensation, wage laws, and whistleblower protections. Employees cannot be punished for asserting rights, filing complaints, participating in investigations, or opposing discrimination. Retaliation often triggers greater liability than underlying complaints.

56. C - Retaliation examples include termination, demotion, pay reduction, undesirable shift assignments, increased scrutiny, hostility, isolation, poor evaluations, and any adverse action materially affecting employment terms following protected activity. Subtle retaliation (social ostracism, micromanagement, criticism) also violates law. Any negative change following protected activity may be retaliation.

57. B - At-will disclaimers in handbooks state that employment is at-will and can be terminated by either party for any lawful reason without notice. They preserve employer flexibility and counter implied contract arguments. Disclaimers should be clear, conspicuous, and in multiple locations. Well-drafted disclaimers help maintain at-will status.

58. D - At-will employment is overcome by employment contracts specifying terms or requiring cause for termination, collective bargaining agreements establishing just cause standards, or implied contracts from handbooks/policies creating reasonable expectations of continued employment. These exceptions limit termination rights. At-will is default but many exceptions exist.

59. A - Handbook disclaimers prevent handbooks from becoming implied contracts limiting at-will employment. Without disclaimers, handbook policies (progressive discipline, performance standards) may create enforceable contracts requiring following handbook procedures before termination. Strong disclaimers, acknowledgments, and reservation of rights language prevent implied contracts preserving at-will status.

60. C - Employees must sign written acknowledgments stating they received handbooks, understand contents, agree to abide by policies, and acknowledge employment is at-will. Signed acknowledgments prove employees received handbooks and understood key terms. Without signed acknowledgments, employees can claim they never received handbooks or didn't understand at-will status.

61. D - Pollution liability insurance covers claims arising from environmental contamination including pollution from operations, gradual pollution from long-term activities, cleanup costs, third-party bodily injury or property damage from pollution, and legal defense costs. Standard general liability policies often exclude pollution—separate coverage is needed.

62. A - Contractor's Pollution Liability (CPL) provides environmental coverage for contractors' operations covering pollution from construction activities, gradual contamination over time, cleanup costs, regulatory actions, and third-party claims. CPL is essential for contractors handling hazardous materials, disturbing contaminated sites, or using toxic materials.

63. D - Hired and non-owned auto coverage insures against liability from: (1) hired vehicles (rented or leased), and (2) non-owned vehicles (employee personal vehicles used for business). If employees use personal cars for business errands and cause accidents, non-owned coverage protects employers. It fills gaps in commercial auto policies.

64. B - Garage liability insurance is specialized coverage for automotive businesses including car dealerships, repair shops, service stations, and parking garages. It covers premises liability, garage operations liability (test drives, repairs), products (parts sold), and completed operations. Regular general liability doesn't adequately cover automotive operations.

65. A - Tool and equipment insurance (inland marine coverage) protects contractors' tools, equipment, and machinery from theft, loss, or damage at job sites, in transit, or in storage. Standard property policies may exclude tools away from primary locations. Tool insurance is essential for contractors—their tools represent significant investments.

66. D - Inland marine insurance covers property in transit, movable equipment, tools at job sites, and property at temporary locations. Despite the name, it doesn't require water transport—it covers land transportation too. Contractors use inland marine for tools, equipment, materials in transit, and property at multiple job sites.

67. C - Builder's risk policies typically have per-occurrence deductibles with higher deductibles for specific perils like wind and hail (often 1-5% of insured value rather than fixed amounts). Higher wind/hail deductibles reflect those perils' catastrophic potential. Deductibles apply per occurrence—each covered loss triggers deductible.

68. B - Soft costs coverage in builder's risk pays increased financing costs from project delays (additional loan interest), lost rental income during extended construction, real estate taxes during delays, advertising costs, and other delay-related expenses. Standard builder's risk covers direct physical loss; soft costs coverage covers consequential delay costs.

69. D - Builder's risk covers property being built (the building itself, materials, equipment). General liability covers third-party bodily injury and property damage claims from construction operations. Builder's risk is property insurance for the project; general liability is liability insurance for injuries/damage to others. Both are essential but cover completely different risks.

70. B - Installation floater insurance covers materials, fixtures, and equipment while being transported to and installed at job sites until accepted by owners. It bridges gap between seller's insurance (when materials leave warehouse) and builder's risk or property insurance (which may not cover until installation complete). Installation floaters protect in-transit and during-installation periods.

71. C - Mechanics liens appear on property title reports and may affect contractors' creditworthiness and business credit reports. Multiple liens or large liens suggest payment problems damaging reputation and future business opportunities. Lien filings, even if justified, can impact credit ratings. Avoid filing frivolous liens—they have reputational costs.

72. B - Tracking lien releases ensures all liens are released providing clear title for refinancing or sale, triggering final payments from owners/lenders, preventing title insurance issues, and proving payments were made. Obtain signed releases from all lien claimants and record them promptly. Failure to clear liens delays closings and payments.

73. D - Conditional final lien waivers state waivers are effective only upon payment of specified amounts. They provide protection—if checks bounce, lien rights are preserved. Conditional waivers are safer than unconditional waivers. Always use conditional waivers when providing releases in exchange for payments—they protect against bounced checks.

74. D - Unconditional final lien waivers permanently and immediately waive all lien rights regardless of payment status. They should **ONLY** be provided after final payments clear—never exchange unconditional waivers for checks without waiting for clearing. Once signed, unconditional waivers cannot be undone even if never paid.

75. C - Partial unconditional lien waivers release lien rights for specified amounts of progress payments that have been received. They waive rights only for those specific amounts, preserving rights for remaining unpaid contract balance. Partial waivers are common with progress payments—each payment triggers partial waiver for that amount only.

76. C - Cost-plus contracts reimburse contractors for actual project costs (labor, materials, equipment, subcontractors) plus fees (fixed fee, percentage of costs, or cost plus fixed percentage). Owners pay verified costs plus agreed markup. These contracts shift cost risk to owners but require open-book accounting and careful cost tracking.

77. B - In cost-plus contracts, owners bear cost risk (paying actual costs whatever they are), while contractors bear performance risk (must complete work properly). If costs exceed estimates, owners pay more. Contractors are protected from cost overruns but must perform quality work. Risk allocation favors contractors on cost but owners control contractor performance.

78. D - Guaranteed Maximum Price (GMP) contracts are cost-plus with upper limits (caps). Owners pay actual costs up to guaranteed maximums. If costs are less, savings may be shared. If costs exceed GMPs, contractors absorb overruns. GMPs protect owners from unlimited cost exposure while maintaining cost-plus flexibility.

79. B - When costs exceed GMPs, contractors absorb cost overruns unless they result from owner-caused changes or unforeseen conditions covered by contract terms. This risk sharing incentivizes contractors to control costs. GMPs protect owners from cost escalation placing overrun risk on contractors.

80. C - Target price incentives establish target costs with shared savings/overruns around targets. If costs are less than targets, savings are split (e.g., 50/50). If costs exceed targets, overruns are shared. This structure incentivizes cost efficiency by letting contractors share in savings. Both parties have incentive to control costs.

81. A - Open book accounting requires contractors fully disclose all project costs to owners allowing verification of cost-plus billings. Contractors must provide detailed cost records, invoices, timecards, and subcontractor billings. This transparency is essential in cost-plus contracts ensuring owners aren't overcharged. Contractors lose pricing confidentiality but gain owner trust.

82. D - In cost-plus contracts, owners have rights to audit contractors' books verifying costs are legitimate, properly allocated to projects, and comply with contracts. Audits ensure accurate billing. Contracts specify audit procedures and timing. Maintain meticulous cost records—owners can and will audit cost-plus projects.

83. B - Allowances are budget amounts for undefined scope where owners select specific products (fixtures, finishes, appliances) and contractors install them. If actual costs exceed allowances, owners pay

differences; if less, owners receive credits. Allowances give owners selection control while establishing budget parameters. They're common for finish selections.

84. C - Contingencies are budget reserves for unforeseen conditions or minor scope additions (not major changes). They cover surprises that aren't change orders—differing site conditions, correcting errors, or addressing unforeseen issues. Contingencies aren't owners' discretionary funds—they're risk reserves. Typical contingencies are 3-10% of construction costs.

85. A - Allowances cover owner selections for defined but unspecified items (lighting fixtures, flooring, appliances). Contingencies cover unforeseen conditions and minor changes. Allowances are for known scope with unknown products; contingencies are for unknown scope. Both are budget line items but serve different purposes.

86. D - Construction Management at-risk (CMc) is project delivery where construction managers guarantee maximum prices and take on general contractor risk/responsibilities. CMs provide preconstruction services (estimating, scheduling, value engineering) and then contract for construction assuming performance risk. At-risk CMs are essentially general contractors with more owner collaboration.

87. B - Construction Management Agency (CMA) is consulting service where construction managers advise owners, coordinate work, and manage projects without guaranteeing prices or assuming contractor risk. CMs are owners' agents—separate contractors contract directly with owners. Agency CMs provide expertise without taking on construction risk.

88. C - Design-build is integrated project delivery where single entities provide both design and construction services under single contracts. Design-build teams include designers (architects/engineers) and builders working collaboratively. Single-point responsibility streamlines communication and reduces conflicts. It's alternative to traditional design-bid-build where design and construction are separate.

89. C - Design-build advantages include single-point responsibility eliminating finger-pointing between designers and builders, faster project delivery through concurrent design and construction, better coordination preventing design-constructability conflicts, and potential cost savings from value engineering. Unified teams collaborate rather than adversarially working.

90. D - Integrated Project Delivery (IPD) is highly collaborative approach where owners, designers, and contractors share risks and rewards through multi-party contracts. Early involvement, open information sharing, and aligned incentives promote collaboration over adversarial relationships. Savings are shared; overruns are shared. IPD requires trust and alignment.

91. B - Early contractor involvement allows construction input during design improving constructability, identifying cost-effective methods, value engineering opportunities, realistic scheduling, and risk identification. Contractor expertise improves designs before construction reducing conflicts, changes, and problems. Early involvement prevents expensive late-stage redesign.

92. C - Value engineering systematically examines designs and specifications identifying opportunities to reduce costs while maintaining or improving function, quality, and performance. It's not cutting corners—

it's finding cost-effective alternatives meeting requirements. Examples: alternative materials providing same performance at lower cost or simplified details reducing labor.

93. C - Life-cycle cost analysis evaluates total ownership costs including initial construction, operating costs (utilities, maintenance), repair/replacement costs, and eventual demolition. Lowest first cost may not be best value—energy-efficient systems cost more initially but save long-term. Life-cycle analysis optimizes total cost of ownership, not just construction cost.

94. D - Fast-track construction compresses schedules by overlapping design and construction phases. Construction begins before design is complete—foundations start while upper floors are being designed. Fast-tracking reduces delivery time but increases risk of changes and coordination challenges. It's not rushing work—it's parallel processing activities.

95. C - Phased construction builds projects in stages allowing early occupancy of completed phases while later phases continue, spreading costs over time, or staging work to maintain partial building operations. Phased construction manages cash flow, allows early beneficial use, or minimizes operational disruption during renovations.

96. B - Bid alternates are optional scope items with separate pricing allowing owners to add or delete items based on budget. Bidders price base scope and alternates separately. If budgets allow, owners accept alternates; if not, they're deleted. Alternates provide flexibility during bidding. Example: upgrade finishes if budget permits.

97. A - Unit price bidding prices work by quantities and unit rates rather than lump sums. Bidders provide unit prices (\$ per cubic yard concrete, \$ per linear foot pipe) and quantities are measured during construction. Final prices equal actual quantities times unit rates. Unit pricing works when final quantities are uncertain.

98. A - Schedule of values breaks down lump sum contracts allocating amounts to work phases, trades, or activities. It establishes basis for progress billing. If contracts are \$1,000,000, schedule of values might allocate \$100,000 to foundations, \$200,000 to framing, etc. Values guide monthly payment applications.

99. C - Front-loading schedule of values disproportionately allocates high values to early work accelerating cash flow. If framing is allocated \$300,000 instead of \$200,000, contractors get paid more earlier. Excessive front-loading creates overbilling concerns. Some front-loading for mobilization is reasonable; excessive front-loading can indicate cash flow problems.

100. B - Retainage reduction provisions decrease retainage percentages as projects progress or reach milestones. Example: 10% retainage until 50% complete, then 5% thereafter. Reduced retainage improves contractor cash flow after demonstrating performance. It rewards performance while maintaining owner security.

101. B - Early retainage release improves contractor cash flow reducing financing costs (interest on working capital). Contractors finance retainage until release—reducing this period reduces costs. Early release benefits contractors and may reduce project costs. Some owners release retainage earlier (at substantial completion) if appropriate.

102. D - The Public Contract Code is California state law governing public works construction contracts including bidding procedures, contract requirements, payment provisions, bonds, prevailing wages, and performance standards. It establishes rules for public construction protecting public interests and promoting fair competitive bidding. All public works in California follows Public Contract Code.

103. A - Public works bid documents must include detailed drawings and specifications, clear scope definition, contract terms and conditions, payment provisions, bonding requirements, insurance requirements, prevailing wage rates, and all information bidders need for accurate bidding. Complete documents prevent disputes and ensure competitive bidding. Ambiguous documents cause problems.

104. C - Bid protest procedures are formal processes for challenging bid awards with specified deadlines and documentation requirements. Protestors must file written protests stating specific grounds, providing evidence, and meeting deadlines. Agencies review protests, may hold hearings, and issue decisions. Formal procedures ensure fair treatment of protests.

105. B - Bid protest deadlines are typically very short—5-10 days after bid opening or award depending on jurisdiction and protest grounds. Short deadlines promote finality enabling project progress. Missing deadlines forfeits protest rights. Monitor bid results carefully and protest immediately if grounds exist.

106. D - Bid protests must include specific grounds (bidder non-responsibility, specification irregularities, bid evaluation errors), factual support with documentation, identification of affected parties, and relief requested. General complaints or unsubstantiated allegations are insufficient. Well-documented protests with clear legal grounds have better success.

107. B - Successful bid protests may result in rebidding projects (canceling awards and re-advertising), disqualifying non-compliant low bidders and awarding to protestors, correcting evaluation errors, or reforming specifications. Remedies depend on protest grounds. Monetary damages generally aren't available—relief is rebidding or proper award.

108. C - Powered industrial truck (forklift, pallet jack, etc.) operation requires employer certification and training specific to equipment types and workplace conditions. Training covers operation, load capacity, stability, hazards, and safe practices. Operators must demonstrate competence. Uncertified operation violates OSHA and creates extreme risk.

109. B - Forklift operators must be recertified every 3 years, after accidents, after observed unsafe operation, when assigned to different truck types, or when workplace conditions change. Recertification ensures continued competence and reinforces safety. Regular recertification prevents complacency and maintains skills.

110. D - Scissor lifts require specific training covering operation, capacity, fall hazards, stability, tip-over prevention, and inspection. Forklift training doesn't qualify for scissor lifts—different equipment requires different training. Operators must demonstrate competence on scissor lifts specifically. Equipment-specific training is essential.

111. A - Aerial lift operators must use full body harnesses and lanyards attached to boom or bucket anchor points (not guardrails which may give way). Fall protection is mandatory in aerial lifts. Body belts aren't

adequate—full body harnesses prevent injury in falls. Guardrails alone don't provide adequate fall protection.

112. C - Climbing or sitting on aerial lift guardrails is prohibited—workers must remain inside baskets/platforms with feet on floors wearing fall protection. Guardrails provide balance, not support for climbing. Climbing on or over guardrails causes falls. Strict prohibition on climbing guardrails is absolute—no exceptions.

113. B - Crane operators must be certified by accredited third-party certifying organizations for specific crane types and capacity ranges. Certification proves competence through written and practical exams. Employers verify operator certification for specific equipment. In-house training alone is insufficient—third-party certification is required.

114. D - Crane load charts specify safe lifting capacities for various boom lengths, angles, and configurations. Exceeding capacities causes catastrophic failure—crane tip-over, structural failure, or dropped loads killing workers. Never exceed load chart capacities—even slight overloading can cause failure. Load charts are engineering limits, not suggestions.

115. B - Before crane operation each day, competent persons must visually inspect cranes documenting inspections including structural components, wire rope, hooks, brakes, safety devices, and controls. Document inspections on inspection forms. Never operate cranes without daily inspections—hidden defects cause failures. Thorough inspection prevents catastrophes.

116. C - Qualified riggers are trained persons who demonstrate rigging knowledge, can calculate load weights, select appropriate rigging equipment (slings, shackles, etc.), determine load center of gravity, and configure rigging preventing loads from slipping. Riggers must be competent—improper rigging causes load drops. Rigger competence is critical safety component.

117. B - Signal persons are dedicated individuals positioned to see loads and operators providing direction through standardized hand signals when operators' views are obstructed. They coordinate lifting operations preventing striking workers or structures. Signal persons must know standard signals and maintain communication with operators. Dedicated signal persons prevent accidents.

118. B - When working near power lines, maintain minimum clearance distances based on voltage (typically 10-20 feet depending on voltage) or have utility companies de-energize lines. Contact with power lines kills workers instantly through electrocution. Planning and awareness prevent electrocutions—know where power lines are and maintain clearances.

119. A - Minimum crane clearance near power lines depends on voltage: 10 feet for up to 50kV, 10 feet plus 0.4 inches per kV over 50kV. For 200kV lines, clearance is 16 feet (10' + 6'). Greater clearances apply during transport or under certain conditions. Know voltage and maintain required clearances—contact is fatal.

120. C - Excavations adjacent to structures require support systems (shoring, underpinning, tiebacks) protecting structures from movement, settlement, or collapse. Monitor structures for movement during

excavation. Unsupported excavations near structures cause foundation failures and building collapse. Structural engineers must design support systems protecting adjacent structures.

121. B - Trench sloping requirements vary by soil type from OSHA tables: Type A soil (most stable) - 3/4:1 (horizontal:vertical), Type B soil - 1:1, Type C soil (least stable) - 1.5:1. Steeper slopes cause cave-ins. Competent persons must classify soil and specify required slopes. Always use safe slopes for soil types.

122. D - Competent persons must inspect excavations daily before work starts and after any condition changes (rainfall, nearby excavation, vibration, freeze/thaw) that could increase hazards. Inspections identify hazardous conditions requiring correction before workers enter. Daily inspection is minimum—inspect more frequently when conditions warrant.

123. B - Excavations 4 feet or deeper require safe access/egress (ladders, steps, ramps) within 25 feet of workers. Workers need quick escape from cave-ins. Ladders must extend 3 feet above excavation tops. Without adequate access, workers are trapped in emergencies. Multiple access points may be required.

124. C - Protective system options include sloping excavation sides to safe angles, shoring (installing supports), or shielding (trench boxes protecting workers if cave-ins occur). Competent persons select appropriate systems based on soil conditions, excavation depth, and other factors. All three methods are acceptable—choose based on site conditions.

125. B - Aluminum hydraulic shoring is lightweight (easy to handle), adjustable to various trench widths, quick to install and remove (improves productivity), and reliable when properly used. Compared to timber shoring (heavy, time-consuming) or trench boxes (heavy equipment needed), hydraulic shoring is efficient. It's most common shoring method.