

# Practice Test 4

**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)**

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1. What is the Contractors State License Board's Arbitration Program?

- A. Voluntary program resolving consumer-contractor disputes up to \$15,000
- B. Mandatory arbitration
- C. Court litigation
- D. Mediation only

2. What is disciplinary action by CSLB?

- A. Criminal prosecution
- B. Civil lawsuit
- C. Administrative action against license for violations (suspension, revocation, probation)
- D. Financial audit

3. What are grounds for license discipline?

- A. Low revenue only
- B. Violations including fraud, willful disregard, abandonment, diversion of funds, and safety violations
- C. Business structure
- D. Employee turnover

4. What is license revocation?

- A. Temporary suspension
- B. License renewal
- C. License upgrade
- D. Permanent loss of contractor license for serious violations

5. What is license suspension?

- A. Temporary prohibition from contracting for specified period
- B. Permanent cancellation
- C. License upgrade
- D. Automatic renewal

6. What is probation in license discipline?

- A. License cancellation
- B. Permanent revocation
- C. License remains active with conditions and monitoring for compliance
- D. Automatic suspension

7. What is citation authority of CSLB?

- A. Criminal prosecution
- B. Issuing citations with fines for less serious violations without formal hearing
- C. License revocation only
- D. Mandatory jail time

8. What is the citation fine range?

- A. \$100-\$500
- B. \$5,000-\$10,000
- C. No fines
- D. \$100-\$15,000 depending on violation severity

9. What is diversion of construction funds?

- A. Legal practice
- B. Proper accounting
- C. Standard procedure
- D. Ethical behavior

10. What is abandonment of project?

- A. Completing work
- B. Finishing on time
- C. Failing to complete contracted work without legal excuse
- D. Quality work

11. What is willful disregard in contracting?

- A. Accidental mistake
- B. Intentional or conscious disregard of laws or regulations
- C. Honest error
- D. Good faith effort

12. What is required continuing education for California contractors?

- A. Annual safety training
- B. Monthly classes
- C. Weekly seminars
- D. None currently required for license renewal (but some specialties require training)

13. What is reciprocal discipline?

- A. Mutual agreement
- B. Shared liability
- C. Joint venture
- D. Cross-training

14. What must contractors disclose to consumers?

- A. Employee salaries
- B. Profit margins
- C. License number, business name, bond information, and right to verify license status
- D. Tax returns

15. What is the CSLB's BreEZe online system?

- A. Weather monitoring
- B. Online portal for license verification, applications, renewals, and complaints
- C. Building code database
- D. Safety training platform

16. What information is public on contractor licenses?

- A. Nothing is public
- B. Personal financial data
- C. Tax returns
- D. License status, classification, bond info, and disciplinary actions

## **SECTION 2: BUSINESS FINANCES (Questions 17-35)**

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17. What is the quick asset ratio?

- A.  $(\text{Cash} + \text{Marketable Securities} + \text{Accounts Receivable}) \div \text{Current Liabilities}$
- B.  $\text{Total assets} \div \text{Total liabilities}$
- C.  $\text{Net income} \div \text{Revenue}$
- D.  $\text{Fixed assets} \div \text{Equity}$

18. What is working capital ratio?

- A.  $\text{Fixed assets} \div \text{Liabilities}$
- B.  $\text{Revenue} \div \text{Expenses}$
- C.  $\text{Current assets} \div \text{Current liabilities}$  (same as current ratio)

D.  $\text{Net income} \div \text{Total assets}$

19. What is return on assets (ROA)?

A. Total revenue

B.  $\text{Net income} \div \text{Total assets}$  measuring asset utilization efficiency

C. Gross profit

D. Operating income

20. What is return on equity (ROE)?

A.  $\text{Revenue} \div \text{Equity}$

B.  $\text{Assets} \div \text{Equity}$

C.  $\text{Expenses} \div \text{Equity}$

D.  $\text{Net income} \div \text{Shareholders' equity}$  measuring return to owners

21. What is asset turnover ratio?

A.  $\text{Revenue} \div \text{Average total assets}$  measuring efficiency of asset use

B.  $\text{Net income} \div \text{Assets}$

C.  $\text{Expenses} \div \text{Assets}$

D.  $\text{Liabilities} \div \text{Assets}$

22. What is inventory turnover ratio?

A.  $\text{Revenue} \div \text{Inventory}$

B.  $\text{Assets} \div \text{Inventory}$

C.  $\text{Cost of goods sold} \div \text{Average inventory}$

D.  $\text{Net income} \div \text{Inventory}$

23. What does high inventory turnover indicate?

- A. Excess inventory
- B. Efficient inventory management and strong sales
- C. Poor sales
- D. Overstocking

24. What is days sales outstanding (DSO)?

- A. Payment terms
- B. Credit period
- C. Collection time
- D.  $\text{Average days to collect accounts receivable} (365 \div \text{AR turnover})$

25. What is the purpose of financial forecasting?

- A. Projecting future financial performance for planning and decision-making
- B. Historical analysis
- C. Tax preparation
- D. Audit compliance

26. What is a cash budget?

- A. Total cash available
- B. Bank balance
- C. Projection of cash inflows and outflows for future period

D. Expense report

27. What is the purpose of budgeting?

A. Tax filing

B. Planning expected income and expenses, allocating resources, and measuring performance

C. Loan applications

D. Insurance premiums

28. What is zero-based budgeting?

A. No budget

B. Previous year's budget

C. Incremental changes

D. Building budget from zero justifying all expenses annually

29. What is capital budgeting?

A. Operating expense planning

B. Planning for long-term investments in assets like equipment and facilities

C. Working capital management

D. Cash flow budgeting

30. What is payback period?

A. Loan term

B. Payment schedule

C. Time to recover initial investment from project cash flows

D. Interest period

31. What is net present value (NPV)?

A. Current value

B. Present value of future cash flows minus initial investment

C. Gross value

D. Future value

32. What is internal rate of return (IRR)?

A. Interest rate

B. Tax rate

C. Inflation rate

D. Discount rate making NPV equal zero

33. What is the purpose of cost-benefit analysis?

A. Tax calculation

B. Comparing project costs to benefits to determine economic viability

C. Insurance rating

D. License renewal

34. What is sunk cost?

A. Future investment

B. Recoverable expense

C. Past cost that cannot be recovered and should not affect future decisions

D. Variable cost

35. What is opportunity cost?

A. Purchase price

B. Value of next best alternative foregone when making decision

C. Actual cost

D. Fixed cost

### **SECTION 3: EMPLOYMENT REQUIREMENTS (Questions 36-60)**

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36. What is the California Labor Code?

A. Federal law

B. Building code

C. Safety regulation

D. State law governing employment including wages, hours, and working conditions

37. What is Wage Order in California?

A. Payroll schedule

B. Salary structure

C. Pay scale

D. Promotion system

38. What industries have specific Wage Orders?

A. None

- B. Manufacturing only
- C. Construction, professional services, retail, and many others have industry-specific orders
- D. Technology only

39. What is required for commissioned employees?

- A. No special requirements
- B. Written agreement specifying commission calculation and payment timing
- C. Verbal agreement sufficient
- D. No documentation needed

40. What is the difference between commission and bonus?

- A. No difference
- B. Same compensation
- C. Commission based on size
- D. Commission tied to sales/production; bonus is discretionary additional compensation

41. What is minimum wage for tipped employees in California?

- A. Same full minimum wage as non-tipped employees (tips cannot offset minimum wage)
- B. \$2.13 per hour
- C. Half minimum wage
- D. Negotiable rate

42. What is tip pooling?

- A. Individual tips

- B. No sharing allowed
- C. Sharing tips among employees who provide direct customer service
- D. Management taking tips

43. Can employers take tips or require tip sharing with management?

- A. Yes, fully allowed
- B. Yes, with notice
- C. Partially allowed
- D. Sometimes allowed

44. What is piece rate pay?

- A. Hourly wage
- B. Salary
- C. Commission
- D. Fixed amount per task or unit produced

45. What is required for piece rate workers in California?

- A. Separate compensation for rest breaks and other nonproductive time
- B. No breaks required
- C. Unpaid breaks
- D. Reduced minimum wage

46. What is the reporting time pay requirement?

- A. No requirement

- B. Reporting time not paid
- C. Half pay for reporting
- D. Overtime only

47. What is split shift premium?

- A. Overtime pay
- B. Additional compensation when shifts split by unpaid non-work period exceeding one hour
- C. Night differential
- D. Weekend pay

48. What is call-back pay?

- A. Regular wages only
- B. No special pay
- C. Half-time rate
- D. Minimum pay for unscheduled recall to work (typically minimum hours guaranteed)

49. What is the Healthy Workplaces, Healthy Families Act?

- A. Insurance mandate
- B. Safety regulation
- C. Wellness program
- D. Building requirement

50. How much sick leave must be provided?

- A. No requirement

- B. 5 days annually
- C. 24 hours or 3 days minimum annually (can cap usage at this amount)
- D. 10 days annually

51. Can employers provide unlimited PTO instead of tracking sick leave?

- A. Not allowed
- B. Yes, if unlimited PTO meets or exceeds sick leave requirements
- C. Only for managers
- D. Only with state approval

52. What is the notice requirement for schedule changes?

- A. No notice required
- B. 24 hours required
- C. One week required
- D. Predictive scheduling laws in some California cities require advance notice and pay for changes

53. What is required information on job postings?

- A. Pay range disclosure in job postings (required in California as of 2023)
- B. Nothing required
- C. Company revenue
- D. Owner information

54. What is pay transparency?

- A. Public salary information

- B. Posting all wages
- C. Employees can discuss wages without retaliation; employers must disclose pay scales
- D. Wage secrecy

55. What is the National Labor Relations Act (NLRA)?

- A. State law
- B. Federal law protecting employees' rights to organize, unionize, and engage in collective bargaining
- C. Building code
- D. Safety regulation

56. What activities are protected under NLRA?

- A. Nothing protected
- B. Management decisions
- C. Corporate strategy
- D. Budget planning

57. What is an unfair labor practice?

- A. Legal activity
- B. Proper conduct
- C. Allowed behavior
- D. Standard practice

58. What is the difference between union and non-union shops?

- A. No difference

- B. Same requirements
- C. Union shops require union membership; non-union shops do not
- D. Location only

59. What is collective bargaining?

- A. Individual negotiation
- B. Negotiation between employer and union representatives over wages, hours, and conditions
- C. Management decision
- D. Corporate planning

60. What must employers do during union organizing?

- A. Threaten employees
- B. Promise benefits to discourage organizing
- C. Interrogate about union support
- D. Spy on union activities

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

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61. What is the purpose of errors and omissions (E&O) insurance?

- A. Property coverage
- B. Auto insurance
- C. Professional liability coverage for mistakes or negligent services
- D. Workers' compensation

62. What is cyber liability insurance?

- A. Technology equipment
- B. Covering data breaches, cyber attacks, and privacy violations
- C. Software licenses
- D. Internet service

63. What is employment practices liability insurance (EPLI)?

- A. Workers' compensation
- B. General liability
- C. Auto insurance
- D. Payroll insurance

64. What does EPLI cover?

- A. Employment-related claims (discrimination, harassment, wrongful termination, retaliation)
- B. Property damage
- C. Auto accidents
- D. Product defects

65. What is fiduciary liability insurance?

- A. General liability
- B. Property insurance
- C. Covering breaches of fiduciary duty in managing employee benefit plans
- D. Auto insurance

66. What is a bonding company's right of recovery?

- A. No recovery rights
- B. After paying claims, bonding company can pursue contractor for reimbursement (indemnification)
- C. Bonds are gifts
- D. No recourse

67. What is the difference between a bond and insurance?

- A. Same product
- B. No difference
- C. Cost only
- D. Coverage only

68. What is a bid bond amount typically?

- A. 5-10% of bid amount ensuring bidder will sign contract if awarded
- B. 100% of bid
- C. 1% of bid
- D. No specific amount

69. What is a performance bond amount?

- A. 10% of contract
- B. 50% of contract
- C. Typically 100% of contract value guaranteeing completion
- D. 25% of contract

70. What is a payment bond purpose?

- A. Owner payment
- B. Guaranteeing payment to subcontractors and suppliers
- C. Financing
- D. Insurance premium

71. What is a maintenance bond?

- A. Performance bond
- B. Payment bond
- C. Bid bond
- D. License bond

72. What is bond capacity?

- A. Total dollar amount of bonds bonding company will issue to contractor
- B. Single project limit
- C. Annual revenue
- D. Insurance coverage

73. What is the purpose of financial statements for bonding?

- A. Tax filing
- B. License renewal
- C. Demonstrating financial capacity to complete bonded work
- D. Marketing

74. What is personal indemnity agreement?

- A. Insurance policy
- B. Contractor and owners personally guarantee reimbursement to bonding company for losses
- C. Bond waiver
- D. Performance guarantee

75. What is aggregate lien limit?

- A. No limit
- B. Unlimited claims
- C. Per project limit
- D. Total maximum recovery from bond across all claims

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

76. What is a letter of intent?

- A. Binding contract
- B. Final agreement
- C. Completion certificate
- D. Preliminary document expressing intention to enter contract (may be binding or non-binding)

77. What is a work order?

- A. Written authorization for specific work often under master service agreement
- B. Purchase order
- C. Invoice
- D. Receipt

78. What is a service agreement?

- A. One-time project
- B. Single task
- C. Contract for ongoing services over extended period
- D. Purchase agreement

79. What is master service agreement (MSA)?

- A. Single project contract
- B. Framework contract establishing general terms for multiple future work orders
- C. One-time agreement
- D. Purchase order

80. What is a subcontract?

- A. Prime contract
- B. Owner agreement
- C. Direct contract
- D. Contract between general contractor and subcontractor for portion of work

81. What must subcontracts include?

- A. Scope of work, payment terms, flow-down provisions from prime contract
- B. Nothing specific
- C. General descriptions
- D. Verbal terms

82. What are flow-down provisions?

- A. Drainage requirements
- B. Plumbing specifications
- C. Prime contract terms that apply to subcontractors
- D. Water management

83. What is pay-when-paid clause?

- A. Immediate payment
- B. Subcontractor payment conditioned on general contractor receiving payment from owner
- C. Advance payment
- D. Deposit required

84. What is the legal status of pay-when-paid clauses?

- A. Always unenforceable
- B. Always enforceable
- C. Varies by interpretation
- D. Enforceable in California if clearly drafted, but subject to time limits (reasonable time)

85. What is contingent payment clause?

- A. Guaranteed payment
- B. Immediate payment
- C. Advance payment
- D. Deposit requirement

86. What is retainage?

- A. Final payment
- B. Advance payment
- C. Percentage withheld from progress payments (typically 5-10%) until completion
- D. Deposit

87. What is the purpose of retainage?

- A. Increasing profit
- B. Ensuring completion and correction of defects
- C. Reducing costs
- D. Tax advantage

88. What is prompt payment law?

- A. No time limits
- B. Flexible payment
- C. Whenever convenient
- D. Statutes requiring payment within specified times or triggering interest penalties

89. What is a conditional payment release?

- A. Unconditional release
- B. Immediate release
- C. Permanent waiver
- D. No waiver

90. What is substantial completion date?

- A. Start date
- B. Contract date
- C. Date when work is sufficiently complete for intended use with only minor items remaining
- D. Bid date

91. What is punch list?

- A. Time sheet
- B. List of minor remaining items to complete or correct after substantial completion
- C. Equipment list
- D. Material order

92. What is final completion?

- A. Starting work
- B. Bidding phase
- C. Planning stage
- D. All work complete including punch list with no outstanding items

93. What is certificate of occupancy?

- A. Building permit
- B. Construction license
- C. Insurance certificate
- D. Contract document

94. What is as-built documentation?

- A. Original plans
- B. Bid documents
- C. Drawings showing actual construction as built reflecting changes from original plans
- D. Specifications

95. What is operations and maintenance manual?

- A. Building code
- B. Documentation of equipment operation and maintenance procedures for owner
- C. Safety manual
- D. Employee handbook

96. What is project closeout?

- A. Starting construction
- B. Planning phase
- C. Bidding period
- D. Initial mobilization

97. What is warranty period?

- A. Construction time
- B. Bidding period
- C. Time after completion when contractor must correct defects
- D. Planning phase

98. What is latent defect?

- A. Obvious problem
- B. Visible issue
- C. Hidden defect not discoverable by reasonable inspection
- D. Intentional error

99. What is patent defect?

- A. Hidden defect
- B. Obvious defect visible upon reasonable inspection
- C. Latent problem
- D. Concealed issue

100. What is the statute of limitations for construction defects?

- A. 1 year
- B. 3 years
- C. 5 years
- D. Varies (typically 4 years for economic damages, 10 years for latent defects)

101. What is the statute of repose?

- A. Absolute time limit for claims regardless of discovery (typically 10 years from completion)
- B. Relative time limit
- C. Flexible deadline
- D. Conditional limit

## **SECTION 6: PUBLIC WORKS (Questions 102-107)**

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102. What is covered under public works prevailing wage?

- A. Design only
- B. Office work
- C. Construction, alteration, demolition, repair, and maintenance on public property
- D. Sales

103. What is the definition of public entity?

- A. Private companies
- B. State, county, city, district, or other political subdivision
- C. Non-profits only
- D. Federal government only

104. What is required for contracts under \$1,000 on public works?

- A. Full prevailing wage
- B. Prevailing wage not required for contracts under \$1,000
- C. Partial prevailing wage
- D. Negotiated wages

105. What is the prevailing wage rate determination process?

- A. Contractor determines
- B. Negotiated with workers

- C. Minimum wage applies
- D. Market rates

106. What is the difference between prevailing wage and union wage?

- A. Same wages
- B. No difference
- C. Prevailing wage based on area surveys; union wage from collective bargaining
- D. Always identical

107. What is required when workers perform multiple classifications?

- A. Lowest rate applies
- B. Pay prevailing wage for each classification based on work performed
- C. Average rate
- D. Single rate

## **SECTION 7: SAFETY (Questions 108-125)**

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108. What is required machine guarding?

- A. No guards required
- B. Optional protection
- C. Suggested safety
- D. Guards protecting operators from moving parts, point of operation, and flying debris

109. What are the types of machine guards?

- A. One type only
- B. No categories
- C. Two types
- D. Fixed guards and movable guards

110. What is lockout/tagout used for?

- A. Security only
- B. Access control
- C. Controlling hazardous energy during equipment maintenance and service
- D. Inventory management

111. What is required personal protective equipment (PPE) assessment?

- A. No assessment needed
- B. Written assessment identifying hazards and necessary PPE for each job
- C. Verbal evaluation
- D. Optional review

112. What must employers provide for PPE?

- A. Employees buy own
- B. Shared equipment
- C. Optional provision
- D. Required PPE at no cost to employees (except safety-toe footwear in some cases)

113. What is required for hazardous materials storage?

- A. Any location acceptable
- B. Proper labeling, separation of incompatible materials, secondary containment, and ventilation
- C. No requirements
- D. Mixed storage acceptable

114. What is secondary containment?

- A. Primary storage
- B. Original containers
- C. Backup system preventing spills from reaching environment
- D. Label requirement

115. What are incompatible materials?

- A. All chemicals compatible
- B. Chemicals that react dangerously when mixed (acids and bases, oxidizers and flammables)
- C. Mix anything
- D. No separation needed

116. What is required electrical safety training?

- A. No training required
- B. One-time training
- C. Voluntary training
- D. Training on electrical hazards, safe work practices, and PPE for workers exposed

117. What is qualified electrical worker?

- A. Anyone
- B. Any employee
- C. All workers
- D. No qualifications needed

118. What is the difference between qualified and unqualified electrical workers?

- A. No difference
- B. Same permissions
- C. Qualified workers trained to identify and avoid hazards; unqualified lack training
- D. Pay difference only

119. What is arc flash hazard?

- A. Lighting issue
- B. Explosive energy release from electrical arc causing burns and injuries
- C. Normal operation
- D. No danger

120. What is required arc flash protection?

- A. No protection needed
- B. Regular clothing
- C. Any clothes
- D. Arc-rated PPE and face shields based on incident energy level

121. What is required for work in confined spaces?

- A. Any entry allowed
- B. Atmospheric testing, permits, ventilation, attendant, and rescue equipment
- C. No precautions
- D. General safety only

122. What is a permit-required confined space?

- A. All confined spaces
- B. Open areas
- C. Space with serious hazards (atmosphere, engulfment, configuration) requiring permits
- D. Any workspace

123. What is required heat illness prevention training?

- A. No training required
- B. Training on symptoms, prevention, acclimatization, and emergency response
- C. Summer only
- D. Voluntary education

124. What is the Cal/OSHA heat illness prevention standard?

- A. Suggestions only
- B. Voluntary guidelines
- C. Optional recommendations
- D. Mandatory requirements for water, shade, training, and monitoring

125. What is required when temperatures exceed 95°F?

- A. Business as usual
- B. Increased monitoring, mandatory cool-down breaks, and closer supervision
- C. No changes
- D. Reduced requirements

## Answer Key With Explanations

- 1. A** - CSLB's Arbitration Program is voluntary alternative dispute resolution for consumer-contractor disputes up to \$15,000. Both parties must agree to participate. Arbitrators are neutral third parties—often retired judges or attorneys. Arbitration is faster and less expensive than court litigation. Decisions are binding and enforceable in court.
- 2. C** - Disciplinary action is administrative action by CSLB against contractor licenses for violations. It's not criminal prosecution or civil lawsuits—it's regulatory enforcement. Discipline can include license suspension, revocation, probation with conditions, citations with fines, or orders to pay restitution. CSLB protects consumers through license discipline.
- 3. B** - License discipline grounds include fraud, willful disregard of laws, abandonment of projects, diversion of funds, failure to pay subcontractors/suppliers, failure to complete work, poor workmanship, safety violations, failure to comply with laws, and making false statements. Multiple violations or patterns of misconduct result in harsher discipline.
- 4. D** - License revocation is permanent loss of contractor license for serious violations. Revoked licenses cannot be renewed—contractors must cease all contracting. Revocation is the most severe discipline reserved for egregious violations like fraud, repeated violations, or serious harm to consumers. Reinstatement after revocation is extremely difficult.
- 5. A** - License suspension temporarily prohibits contracting for specified periods (typically 30 days to one year). Suspended contractors cannot contract during suspension but licenses can be reinstated after suspension periods if conditions are met. Suspension is serious discipline for significant violations short of revocation.
- 6. C** - Probation allows licenses to remain active while contractors are monitored for compliance with conditions. Conditions may include additional insurance, quarterly reports, owner protection bonds, restriction to specific work types, or supervision by qualifying individuals. Violating probation terms triggers harsher discipline including revocation.
- 7. B** - CSLB has citation authority issuing administrative citations with fines for less serious violations without formal accusation and hearing processes. Citations are efficient enforcement for violations not warranting license suspension/revocation. Cited contractors can pay fines, contest citations, or request hearings. Citations avoid lengthy formal proceedings.
- 8. D** - Citation fines range from \$100 to \$15,000 depending on violation severity, harm to consumers, contractor's history, and whether violations were willful. Multiple violations or repeated violations result in higher fines. Citations also may include orders to complete work or pay restitution.
- 9. A** - Diversion of construction funds is criminal act of using construction funds paid for specific projects for purposes other than paying project costs. Diverting funds to pay other projects or personal expenses is theft. It's misdemeanor or felony depending on amounts. Diversion triggers automatic license suspension.

**10. C** - Project abandonment is failing to complete contracted work without legal excuse. Contractors who stop work without justification, fail to return to complete work, or leave projects substantially incomplete abandon projects. Abandonment harms consumers and grounds license discipline. Legitimate reasons (non-payment, scope disputes) aren't abandonment.

**11. B** - Willful disregard is intentional or conscious disregard of laws, regulations, or codes. It's more serious than negligence or mistakes—it's knowingly violating requirements. Examples include ignoring building codes, working without permits, or disregarding safety rules. Willful disregard triggers serious discipline including revocation.

**12. D** - California currently doesn't require continuing education for general contractor license renewal. However, asbestos certification, hazardous substance certification, and home improvement salespeople require continuing education. Some states require CE—California may add requirements in the future. Voluntary continuing education improves competency.

**13. A** - Reciprocal discipline means CSLB may discipline California licenses based on discipline taken by other states or federal agencies. If contractors are disciplined elsewhere for similar violations, California can take comparable action. This prevents contractors from escaping consequences by moving jurisdictions.

**14. C** - Contractors must disclose license numbers, business names, addresses, bond information, and inform consumers they can verify license status with CSLB. Contracts must include this information. Consumers have rights to verify contractor legitimacy before hiring. Failure to disclose required information violates law.

**15. B** - BreEZe is CSLB's online Business Regulation Enforcement and Licensing Enterprise system. It allows license verification, online applications and renewals, complaint filing, and accessing license information. BreEZe replaced older systems providing efficient online services. Consumers can verify licenses instantly at [cslb.ca.gov](http://cslb.ca.gov).

**16. D** - Public information includes license status (active, inactive, suspended), classifications, issue dates, expiration dates, bond information, qualifying individuals, business addresses, and disciplinary actions. This transparency helps consumers make informed hiring decisions. Personal financial information and Social Security numbers remain confidential.

**17. A** - Quick asset ratio (acid test) equals  $(\text{Cash} + \text{Marketable Securities} + \text{Accounts Receivable}) \div \text{Current Liabilities}$ . It's more conservative than current ratio—it excludes inventory which may not be quickly convertible to cash. Quick ratios above 1.0 indicate strong liquidity.

**18. C** - Working capital ratio is another name for current ratio:  $\text{Current Assets} \div \text{Current Liabilities}$ . It measures liquidity—ability to pay short-term debts. Ratios above 1.0 mean current assets exceed current liabilities indicating financial health. Ratios below 1.0 signal potential cash flow problems.

**19. B** - Return on Assets (ROA) equals  $\text{Net Income} \div \text{Total Assets}$  showing how efficiently companies use assets to generate profit. Higher ROAs indicate better asset utilization. ROA of 5% means companies generate \$5 profit per \$100 of assets. Compare ROA to industry averages.

**20. D** - Return on Equity (ROE) equals  $\text{Net Income} \div \text{Shareholders' Equity}$  measuring returns to owners. Higher ROEs indicate better returns on owner investment. ROE of 15% means owners earn \$15 per \$100 invested. However, high ROE with high debt can indicate risky leverage.

**21. A** - Asset turnover ratio equals  $\text{Revenue} \div \text{Average Total Assets}$  measuring how efficiently companies use assets to generate sales. Higher turnover indicates better efficiency. Asset turnover of 2.0 means companies generate \$2 revenue per \$1 of assets. Construction typically has lower turnover than retail.

**22. C** - Inventory turnover equals  $\text{Cost of Goods Sold} \div \text{Average Inventory}$  showing how many times inventory is sold and replaced annually. High turnover indicates efficient inventory management and strong sales. Turnover of 12 means inventory turns monthly. Low turnover suggests excess inventory or weak sales.

**23. B** - High inventory turnover indicates efficient inventory management, strong sales, and minimal capital tied up in inventory. Companies order materials as needed avoiding excess inventory costs (storage, obsolescence, financing). However, extremely high turnover may indicate inadequate stock risking stockouts.

**24. D** - Days Sales Outstanding (DSO) equals  $365 \div \text{Accounts Receivable Turnover}$  showing average days to collect receivables. DSO of 45 means collecting payment in 45 days on average. Lower DSO improves cash flow. Rising DSO indicates collection problems requiring attention.

**25. A** - Financial forecasting projects future revenues, expenses, cash flows, and financial positions based on assumptions and trends. Forecasting enables planning, budgeting, securing financing, and strategic decision-making. Accurate forecasting is critical for business success—it guides resource allocation and identifies financing needs.

**26. C** - Cash budgets project cash inflows (customer payments, loans, investments) and outflows (payroll, materials, overhead, loan payments) for future periods. They identify timing of surpluses and shortages enabling planning for financing needs. Cash budgets are essential cash management tools preventing cash crunches.

**27. B** - Budgeting plans expected income and expenses, allocates resources to departments/projects, establishes performance targets, and provides benchmarks for variance analysis. Budgets guide operations and measure performance. They force planning discipline and enable comparison of actual to expected results.

**28. D** - Zero-based budgeting builds budgets from scratch starting at zero. Every expense must be justified annually rather than simply adjusting prior year budgets. ZBB eliminates outdated expenses and forces evaluation of all spending. It's time-consuming but eliminates unnecessary costs. Most companies use incremental budgeting.

**29. B** - Capital budgeting analyzes and plans long-term investments in fixed assets (equipment, buildings, vehicles) considering costs, expected cash flows, and returns. Capital budgeting uses NPV, IRR, and payback analysis. Good capital budgeting ensures investments generate adequate returns justifying capital expenditures.

**30. C** - Payback period is time required to recover initial investment from project cash flows. If \$100,000 equipment generates \$25,000 annual cash flow, payback is 4 years. Shorter payback periods are preferred—they reduce risk. However, payback ignores profitability after payback and time value of money.

**31. B** - Net Present Value (NPV) equals present value of future cash flows minus initial investment. Positive NPV indicates profitable investments—present value exceeds cost. NPV accounts for time value of money (money today is worth more than future money). Accept positive NPV projects.

**32. D** - Internal Rate of Return (IRR) is discount rate making NPV equal zero. It's the project's effective rate of return. If IRR exceeds required return (cost of capital), accept projects. IRR of 15% means projects return 15% annually. Compare IRR to minimum acceptable returns.

**33. B** - Cost-benefit analysis compares project costs to benefits determining if benefits exceed costs justifying investments. It quantifies pros and cons in monetary terms. Positive cost-benefit ratios (benefits exceed costs) support decisions. Cost-benefit analysis applies to capital investments, process changes, and strategic decisions.

**34. C** - Sunk costs are past expenditures that cannot be recovered. Since they're irretrievable, sunk costs should not influence future decisions—they're gone regardless of future actions. Decisions should consider only future costs and benefits. Example: money spent on failed projects shouldn't drive decisions to continue unprofitable projects.

**35. B** - Opportunity cost is value of the best alternative foregone. If you invest \$100,000 in Project A returning 10%, but could have invested in Project B returning 15%, opportunity cost is 5% foregone return. Opportunity costs represent what you give up. Always consider alternatives when making decisions.

**36. D** - California Labor Code is comprehensive state law governing employment relationships including wages, hours, breaks, overtime, workers' compensation, unemployment insurance, discrimination, leave, and enforcement. It provides greater protections than federal law in many areas. Labor Code violations expose employers to substantial liability.

**37. B** - Wage Orders are Industry and Occupation Orders issued by California's Industrial Welfare Commission establishing industry-specific requirements for wages, hours, and working conditions. Different industries have different Wage Orders reflecting their unique characteristics. Construction has Wage Order 16. Wage Orders have force of law.

**38. C** - Many industries have specific Wage Orders: Manufacturing, Personal Services, Mercantile, Professional/Technical/Clerical/Mechanical/Similar Occupations, Public Housekeeping, Laundry/Dry Cleaning, Construction, Transportation, and others. Each order addresses industry-specific issues. Employers must comply with applicable Wage Orders.

**39. B** - Commissioned employees must have written agreements before work begins specifying how commissions are calculated and when they're paid. Agreements must describe commission formulas, payment triggers, and draw/advance provisions if applicable. Oral commission agreements are insufficient—written documentation is required.

**40. D** - Commissions are compensation directly tied to sales, revenue, or production—typically percentage of sales. Bonuses are additional discretionary compensation beyond regular wages not necessarily tied to specific metrics. Commissions are earned wages owed when triggers occur; bonuses are gifts (unless employment contracts guarantee them).

**41. A** - California requires full minimum wage for all employees including tipped employees. Tips cannot offset minimum wage—they're additional compensation above minimum wage. This differs from federal law allowing tip credits. California tip rules are more protective ensuring adequate base wages.

**42. C** - Tip pooling shares tips among employees who provide direct customer service (servers, bartenders, bussers). Voluntary tip pooling is legal when tips are distributed among eligible employees. Mandatory tip pooling is legal if amounts and distribution are reasonable and all recipients provide direct service.

**43. B** - Employers cannot take any tips or require sharing tips with management or supervisors. Tips belong entirely to employees—they're not employer property. Forcing tip sharing with management is wage theft. Employers can facilitate tip pooling among service employees but cannot participate or mandate unreasonable pooling.

**44. A** - Piece rate pay compensates based on tasks completed or units produced rather than time worked—\$X per unit installed, per square foot completed, or per job finished. Piece rates must average at least minimum wage for all hours worked. Many construction trades use piece rates.

**45. A** - California requires separate compensation for piece rate workers' rest breaks and "other nonproductive time" (meetings, training, waiting time). Piece rate alone doesn't cover non-productive time. Employers must pay at least minimum wage or regular rate for these periods. Separate compensation ensures lawful payment.

**46. C** - Reporting time pay requires paying employees minimum pay (typically 2-4 hours at regular rate, depending on circumstances) when employees report for scheduled work but work fewer hours than scheduled through no fault of their own. This compensates for reporting as directed despite reduced hours.

**47. B** - Split shift premium pays additional compensation (one hour at minimum wage) when shifts are split by unpaid non-work periods exceeding one hour. If employees work 6am-10am and 2pm-6pm (4-hour gap), they're entitled to split shift premium. This compensates for inconvenience of split schedules.

**48. D** - Call-back pay provides minimum payment (typically 2-4 hours) when employees are called back to work outside regular shifts. Paying only for actual time worked (30 minutes) is insufficient—minimum call-back pay applies. This compensates for inconvenience of unscheduled recall.

**49. C** - The Healthy Workplaces, Healthy Families Act (AB 1522) requires California employers provide paid sick leave. It establishes minimum sick leave accrual, usage, and carryover requirements. The law ensures workers can take sick time without losing pay protecting public health by reducing spread of illness.

**50. C** - Employers must provide at least 24 hours or 3 days paid sick leave annually. Employees accrue one hour per 30 hours worked (with caps) or receive 24+ hours upfront. Employers can limit annual usage to 24 hours/3 days. Unused leave carries over (with caps) unless paid out.

**51. B** - Employers providing unlimited PTO that meets or exceeds sick leave requirements (covers same uses, no discrimination, immediately available) can avoid tracking sick leave accrual separately. However, PTO policies must genuinely provide equivalent or better benefits. Most employers separately track sick leave.

**52. D** - Some California cities (San Francisco, Los Angeles, Emeryville, others) have predictive scheduling ordinances requiring advance schedule notice (typically 2 weeks), paying for last-minute changes, and guaranteeing minimum hours. Requirements vary by city. Statewide predictive scheduling doesn't exist but may be enacted.

**53. A** - California requires employers (15+ employees) disclose pay scales in job postings. Applicants can also request pay scale information. Pay transparency promotes equity reducing discriminatory pay disparities. Many states are enacting similar requirements. Pay scale disclosure helps applicants make informed decisions.

**54. C** - Pay transparency laws protect employees' rights to discuss wages with coworkers without retaliation. Employers cannot prohibit wage discussions or punish employees for discussing pay. Some laws also require salary range disclosure in job postings. Pay transparency addresses wage discrimination by exposing disparities.

**55. B** - The National Labor Relations Act (NLRA) is federal law protecting employees' rights to organize unions, engage in collective bargaining, and participate in concerted activities for mutual aid or protection. It applies to most private sector employees. NLRA prohibits employer interference with organizing rights.

**56. D** - NLRA protects: union organizing, joining unions, collective bargaining, striking, discussing wages/working conditions with coworkers, and other concerted activities for mutual aid. Even non-union employees have NLRA rights to discuss working conditions collectively. Retaliation for protected activities is unfair labor practice.

**57. A** - Unfair labor practices are employer or union violations of NLRA. Employer unfair practices include: threatening employees for union support, interrogating about union activities, promising benefits to discourage organizing, surveillance of union activities, and discriminating against union supporters. National Labor Relations Board enforces NLRA.

**58. C** - Union shops require employees join unions or pay equivalent fees after hire (typically 30 days). Non-union shops have no such requirements. Right-to-work states prohibit mandatory union membership. California is not right-to-work—union security agreements are legal. Union membership affects dues but not typically wages/conditions which contracts determine.

**59. B** - Collective bargaining is negotiation between employers and union representatives over wages, hours, and working conditions. Both parties must negotiate in good faith. Agreements are collective

bargaining agreements (CBAs) binding employers and unions. CBAs establish wages, benefits, work rules, and dispute resolution procedures.

**60. C** - During union organizing, employers cannot: threaten employees (TIPS: Threaten, Interrogate, Promise, Surveil), promise benefits to discourage organizing, interrogate employees about union support, conduct surveillance of union activities, or discriminate against union supporters. These activities are unfair labor practices. Employers can provide factual information about unions.

**61. C** - Errors and Omissions (E&O) insurance (professional liability) covers mistakes, negligence, and failures to perform professional services. If professional advice, designs, or services cause client losses, E&O responds. Design professionals, consultants, and service providers need E&O. General liability doesn't cover professional mistakes.

**62. B** - Cyber liability insurance covers data breaches, hacking, ransomware attacks, privacy violations, and cyber extortion. It pays notification costs, credit monitoring, legal fees, regulatory fines, and business interruption from cyber events. As cyber threats increase, cyber liability becomes essential for businesses storing customer/employee data.

**63. C** - Employment Practices Liability Insurance (EPLI) covers employment-related claims. General liability doesn't cover employment claims—separate EPLI is needed. EPLI protects against costly employment litigation which has become increasingly common. Even frivolous claims cost substantial defense expenses.

**64. A** - EPLI covers discrimination, harassment (sexual and other), wrongful termination, retaliation, failure to promote, wage/hour violations, and other employment-related claims. Policies typically pay defense costs and settlements/judgments. EPLI is critical protection as employment litigation increases and verdicts grow larger.

**65. C** - Fiduciary liability insurance protects plan fiduciaries (those controlling employee benefit plans) from breach of fiduciary duty claims. ERISA requires fiduciaries act solely in participants' interests. Mismanaging 401(k) plans, making poor investment choices, or failing to follow plan terms creates liability. Fiduciary insurance is essential for plan sponsors.

**66. B** - Bonding companies paying claims under contractor bonds have indemnification rights pursuing contractors for reimbursement. Contractors sign indemnity agreements making them (and often owners and spouses) personally liable repaying bond claims. Bonds aren't insurance—they're credit extended with reimbursement required.

**67. D** - Bonds are three-party agreements where sureties guarantee contractors' performance to obligees (owners). If contractors default, sureties complete work or pay costs, then seek reimbursement from contractors. Insurance is two-party covering insureds' losses. Bonds guarantee to third parties; insurance protects insureds. Key distinction: bonds require reimbursement.

**68. A** - Bid bonds typically equal 5-10% of bid amounts. They guarantee bidders will execute contracts if awarded and provide required performance/payment bonds. If bidders refuse, owners can claim against bid bonds for cost differences to next bidders. Bid bonds discourage frivolous low bids.

**69. C** - Performance bonds typically equal 100% of contract values guaranteeing contractors will complete work according to contracts. If contractors default, sureties either complete work using other contractors or pay owners amounts to complete work (up to bond amounts). Full contract value bonds provide adequate protection.

**70. B** - Payment bonds guarantee contractors will pay subcontractors, suppliers, and laborers. If contractors fail to pay, claimants make claims against payment bonds. Payment bonds protect owners from liens and ensure subs/suppliers get paid. Public projects require payment bonds; many private projects also require them.

**71. D** - Maintenance bonds (warranty bonds) guarantee contractors will correct defects during warranty periods. If contractors fail to honor warranties, owners can claim against maintenance bonds for repair costs. Maintenance bonds extend for warranty periods (typically 1 year) after project completion.

**72. A** - Bond capacity is aggregate dollar amount of bonds bonding companies will issue to contractors. Capacity depends on financial strength, experience, backlog, and performance history. Strong contractors have high capacity; weaker contractors have limited capacity. Bonding companies regularly review capacity based on financial statements and performance.

**73. C** - Financial statements demonstrate financial capacity completing bonded work. Bonding companies evaluate working capital, equity, profitability, and liquidity determining contractors can complete projects without financial failure. Strong financials increase bonding capacity; weak financials limit capacity or prevent bonding. Financial reporting to sureties is mandatory.

**74. B** - Personal indemnity agreements (also called indemnity agreements or general agreements of indemnity) make contractors and often owners/spouses personally liable reimbursing bonding companies for losses paid under bonds. These agreements pierce limited liability protections. Signing indemnity agreements is condition of obtaining bonds.

**75. D** - Aggregate bond limits are maximum total recoveries across all claims against bonds regardless of claim numbers. If aggregate is \$75,000, total payouts cannot exceed \$75,000 even if multiple claimants each have \$15,000 claims. Per-claim and aggregate limits protect bonding companies from excessive exposure.

**76. D** - Letters of intent express parties' intentions to enter contracts. They may be binding or non-binding depending on language and circumstances. Binding LOIs create contractual obligations despite "letter of intent" title. Non-binding LOIs are preliminary negotiations without commitment. Always include clear language about binding nature.

**77. A** - Work orders are written authorizations for specific work, often under master service agreements establishing general terms. Work orders specify scope, price, schedule for particular tasks. They're common in ongoing service relationships where MSAs establish framework and individual work orders authorize specific projects.

**78. C** - Service agreements are contracts for ongoing services over extended periods (HVAC maintenance, janitorial services, property management). They establish service requirements, frequencies, pricing, and

terms for continuing relationships. Service agreements differ from project-specific contracts—they're long-term ongoing service arrangements.

**79. B** - Master Service Agreements establish general terms and conditions for multiple future work orders or task orders. MSAs include standard terms (insurance, indemnity, warranties, payment terms) avoiding renegotiating terms for each project. Individual work orders reference MSAs and add project-specific details (scope, price, schedule).

**80. D** - Subcontracts are contracts between general contractors and subcontractors for portions of prime contract work. Subcontracts create contractual privity between generals and subs. Subs have contracts with generals, not owners. Subcontract terms should flow down appropriate prime contract obligations to subs.

**81. A** - Subcontracts must include clear scope of work descriptions, payment terms, work schedules, flow-down provisions from prime contracts, insurance requirements, safety requirements, and dispute resolution. Well-drafted subcontracts prevent disputes and clearly establish obligations. Never rely on oral subcontracts—written documentation is essential.

**82. C** - Flow-down provisions pass relevant prime contract terms to subcontractors. Terms that should flow down include payment timing, change order procedures, warranties, indemnification, insurance, dispute resolution, and project-specific requirements. Flow-down provisions ensure subs comply with owner requirements and protect generals from sub non-compliance.

**83. B** - Pay-when-paid clauses condition subcontractor payment on general contractors receiving payment from owners. They shift non-payment risk from generals to subs. "Sub shall be paid when General is paid by Owner" is pay-when-paid language. These clauses are controversial but generally enforceable with limitations.

**84. D** - California courts generally enforce pay-when-paid clauses if clearly drafted but impose "reasonable time" limits. If owners don't pay within reasonable time, generals must pay subs. Pay-when-paid cannot indefinitely delay payment. Courts scrutinize these clauses protecting subs from unreasonable payment delays.

**85. A** - Contingent payment clauses (pay-if-paid clauses) make owner payment absolute condition precedent to sub payment. They're stronger than pay-when-paid—if owners never pay, generals never have to pay subs. These clauses transfer non-payment risk entirely to subs. California courts view contingent payment clauses unfavorably and require extremely clear language.

**86. C** - Retainage is percentage (typically 5-10%) withheld from progress payments as security for completion and defect correction. Retainage accumulates throughout projects and is released at completion (or substantial completion with small holdback). Retainage provides leverage ensuring contractors complete punch lists and correct defects.

**87. B** - Retainage ensures project completion and defect correction by withholding funds until work is complete and correct. It protects owners from abandonment and defective work providing financial

incentive for contractors to finish properly. However, retainage creates cash flow challenges for contractors—lower retainage percentages are increasingly common.

**88. D** - Prompt payment laws require payment within specified times (typically 7-30 days) or trigger interest penalties (often 1-2% monthly). California has prompt payment requirements for public and some private projects. Prompt payment laws address slow payment problems improving cash flow for contractors and subs.

**89. D** - Conditional payment releases are effective only upon payment. They state "This release is effective only when the check clears" or similar language. Conditional releases protect against exchanging lien rights for bad checks. Always use conditional releases when receiving payment—unconditional releases are effective immediately regardless of payment.

**90. C** - Substantial completion occurs when work is sufficiently complete for owners' intended use with only minor punch list items remaining. At substantial completion, owners can occupy and use facilities. It triggers warranty periods, final payment (minus retainage for punch list), and shortened lien deadlines. Substantial completion is critical project milestone.

**91. B** - Punch lists are itemized lists of minor incomplete or incorrect items remaining at substantial completion. Punch lists typically include touch-up, final cleaning, missing hardware, adjustments, and minor corrections. Parties walk through projects creating punch lists. Completing punch lists triggers final payment. Punch list items should be minor.

**92. D** - Final completion occurs when all work including punch list items is complete with no outstanding items. At final completion, owners accept projects, warranties begin, final payment is due, and projects close. Final completion differs from substantial completion—at final completion, absolutely everything is done.

**93. D** - Certificates of occupancy are government-issued documents certifying buildings comply with codes and are safe for occupancy. Building departments issue COs after final inspections. Occupying buildings without COs violates law and can void insurance. COs are essential for building use. Don't occupy until COs are issued.

**94. C** - As-built drawings (record drawings) show actual construction as built reflecting field changes, differing conditions, and deviations from original plans. They're marked-up plans showing final installed conditions. As-builts are valuable for future renovations, maintenance, and facility management. Smart contractors document changes creating accurate as-builts.

**95. B** - Operations and maintenance manuals document equipment operation and maintenance procedures including: equipment descriptions, operating instructions, maintenance schedules, warranty information, parts lists, and troubleshooting guides. O&M manuals help owners maintain facilities properly. Providing complete O&M manuals is standard contract requirement.

**96. C** - Project closeout is final project phase after substantial/final completion involving: punch list completion, final inspections, final payment, lien releases, warranties, as-built drawings, O&M manuals,

closeout documentation, and project archiving. Thorough closeout is professional practice preventing disputes and establishing good relationships for future work.

**97. C** - Warranty periods (typically 1 year for construction) are times after completion when contractors must correct defects at no cost to owners. Warranties cover materials and workmanship. Contractors return to correct warranted defects. Extended warranties (roofs, equipment) may exceed one year. Warranty obligations continue after final payment.

**98. C** - Latent defects are hidden defects not discoverable through reasonable inspection—defects concealed behind finishes or not yet manifested. Structural issues, hidden plumbing leaks, and concealed electrical problems are latent defects. Latent defects often appear years after completion. They have longer statutes of limitations than patent defects.

**99. B** - Patent defects are obvious defects visible upon reasonable inspection—cracked concrete, misaligned doors, or visible leaks. Parties are expected to discover patent defects during construction or punch lists. Owners who accept work with visible defects may waive claims for those defects. Distinguish patent from latent defects.

**100. D** - Construction defect statutes of limitations vary by claim type and jurisdiction. California typically allows 4 years for economic damages (breach of contract), 2 years for personal injury, and 3 years for property damage. Latent defects may have discovery rules extending limitations. Additionally, 10-year statute of repose limits all claims.

**101. A** - Statutes of repose establish absolute deadlines for claims regardless of discovery. California's 10-year statute of repose (from substantial completion) bars all construction defect claims after 10 years even if defects weren't discovered. Statutes of repose protect contractors from indefinite liability. They differ from statutes of limitations which run from discovery.

**102. C** - Prevailing wage applies to construction, alteration, demolition, installation, repair, and maintenance work on public property or with public funds. It covers all crafts and classifications—laborers, carpenters, electricians, plumbers, operators, and others. Even delivery drivers and materials suppliers may be covered depending on work performed.

**103. B** - Public entities include state, county, city, district (school district, water district), authority, public corporation, or other political subdivision. Work for any government entity is public works. Federal projects have separate federal prevailing wage (Davis-Bacon Act). Public entity definition is broad encompassing all government bodies.

**104. B** - Public works contracts under \$1,000 (\$25,000 for maintenance) are exempt from prevailing wage. These small contracts don't trigger prevailing wage requirements. However, careful monitoring prevents structuring large projects as multiple small contracts to evade prevailing wage. Aggregating related work may trigger requirements.

**105. A** - DIR's Division of Labor Standards Enforcement determines prevailing wage rates through surveys of wages actually paid in geographic areas. Surveys capture straight-time rates, overtime, and

benefits by classification. DIR publishes wage determinations which are publicly available. Prevailing wages often equal union scale but not always.

**106. C** - Prevailing wage is based on area wage surveys showing what's actually paid. Union wage is from collective bargaining agreements. They're often similar (union wages influence prevailing wages) but aren't identical. Non-union contractors pay prevailing wages on public works even if union wages differ.

**107. B** - Workers performing multiple classifications must be paid applicable prevailing wage for each type of work based on hours spent in each classification. If carpenters spend 4 hours on carpentry and 2 hours laboring, pay 4 hours at carpenter rate and 2 hours at laborer rate. Accurate time records by classification are essential.

**108. D** - Machine guarding protects operators from moving parts (gears, pulleys, belts), point of operation (where work is performed), flying debris, and sparks. Guards are physical barriers preventing contact with hazards. Proper guarding is required—removing or defeating guards violates safety regulations. Many serious injuries result from inadequate guarding.

**109. C** - Machine guard types include fixed guards (permanent barriers), interlocked guards (stopping machines when opened), adjustable guards (accommodating different work sizes), and self-adjusting guards (moving with stock). Fixed guards are preferred—they can't be bypassed. Choose appropriate guards for specific machines and operations.

**110. C** - Lockout/tagout controls hazardous energy (electrical, mechanical, hydraulic, pneumatic, thermal) during equipment service and maintenance. Energy sources are locked out preventing unexpected startup that could injure workers. Lockout devices and tags identify workers servicing equipment. LOTO prevents hundreds of deaths and injuries annually.

**111. B** - Employers must conduct written PPE assessments for each job identifying hazards (impact, penetration, compression, chemical, heat, light radiation, electrical) and determining necessary PPE (hard hats, safety glasses, gloves, respirators, hearing protection). Assessments document hazards and PPE selections. Certify assessments with workplace, dates, and evaluators.

**112. D** - Employers must provide required PPE at no cost (except non-specialty safety-toe footwear in some cases). Employees cannot be charged for safety equipment necessary for their jobs. Employer-provided PPE must fit properly and be maintained in sanitary reliable condition. Charging employees for required PPE violates OSHA.

**113. B** - Hazardous materials storage requires proper labeling (GHS-compliant), separating incompatible materials (acids/bases, oxidizers/flammables), secondary containment (preventing environmental release), adequate ventilation, and appropriate storage conditions (temperature, humidity). Poor storage causes fires, explosions, toxic releases, and environmental contamination. Follow storage requirements rigorously.

**114. C** - Secondary containment is backup systems (dikes, berms, containment pallets, double-walled tanks) preventing spilled hazardous materials from reaching soil, water, or drains. It contains spills for

safe cleanup. Secondary containment capacity must equal or exceed stored volumes. It's required for many hazardous materials and petroleum products.

**115. B** - Incompatible materials react dangerously when mixed—acids and bases neutralize explosively generating heat; oxidizers and flammables combust violently; bleach and ammonia create toxic gas. Store incompatibles separately with barriers preventing accidental mixing. Consult SDSs for incompatibilities. Many deaths result from mixing incompatible chemicals.

**116. D** - Workers exposed to electrical hazards need training on electrical hazard recognition, safe work distances, PPE requirements, lockout/tagout procedures, and emergency response. Training frequency depends on qualification level and work type. Qualified workers receive extensive electrical safety training; unqualified workers receive basic awareness training.

**117. A** - Qualified electrical workers are trained to identify electrical hazards and authorized to work on or near exposed energized parts. Qualification requires training on electrical systems, hazard recognition, safety procedures, and PPE use. Only qualified workers can perform electrical work or work near energized parts.

**118. C** - Qualified workers have training and knowledge to recognize electrical hazards and skills to perform electrical work safely. Unqualified workers lack training and cannot work on or near energized electrical equipment. The distinction determines who can perform electrical work. Don't allow unqualified workers near electrical hazards.

**119. B** - Arc flash is explosive release of energy from electrical arcs causing extreme heat (up to 35,000°F), pressure waves, molten metal spray, and intense light. Arc flash causes severe burns, hearing damage, and fatal injuries. Incident energy depends on voltage, available fault current, and clearing time. Arc flash is extremely dangerous.

**120. D** - Arc flash protection requires arc-rated PPE (arc-rated clothing, face shields, gloves) based on incident energy levels calculated for specific equipment and work. Clothing must not ignite or melt. Face shields protect from thermal energy and flying debris. Selection depends on hazard analysis. Cotton clothing is insufficient—it ignites.

**121. B** - Confined space work requires atmospheric testing (oxygen, flammable gases, toxic substances), entry permits authorizing entry, continuous or periodic ventilation, trained attendants outside monitoring entrants, communication systems, rescue equipment, and rescue procedures. Many confined space deaths occur during inadequately planned entries or rescue attempts.

**122. C** - Permit-required confined spaces have serious hazards: hazardous atmospheres (insufficient oxygen, toxic gases, flammable vapors), engulfment risks, configuration causing entrapment, or other recognized serious hazards. They require permits, testing, and controls. Non-permit confined spaces are safer requiring only basic precautions. Classify spaces correctly.

**123. B** - Heat illness prevention training covers heat illness signs/symptoms (heat exhaustion, heat stroke), preventive measures (water, shade, rest), acclimatization procedures (gradual exposure), high-heat

procedures (temperatures above 95°F), and emergency response. Supervisors need additional training on monitoring and responding to symptoms. Train workers before hot weather.

**124. D** - Cal/OSHA's heat illness prevention standard mandates fresh drinking water access at all times, shade for rest breaks and when ill, training on heat illness, high-heat procedures (temperatures above 95°F), monitoring for symptoms, and emergency response procedures. Requirements apply to all outdoor work where heat illness risk exists.

**125. B** - When temperatures exceed 95°F, high-heat procedures require closer supervision, increased monitoring for symptoms, mandatory cool-down rest breaks (10 minutes every 2 hours minimum), reminders to drink water, and heightened awareness. High-heat procedures recognize extreme heat creates severe risk requiring enhanced protections. Many heat deaths occur above 95°F.