

# PRACTICE EXAM 15: OREGON CCB SIMULATION (80 QUESTIONS)

---

80 Multiple-Choice Questions | 200 Minutes | Open-Book Format

1. A residential contractor in Oregon completes a kitchen remodel and the homeowner pays the final invoice in full. Six months later, the homeowner discovers that the countertop installation was defective and files a complaint with the CCB. Under Oregon law, does the homeowner's prior full payment prevent them from filing a CCB complaint?

- A. Yes, because full payment constitutes acceptance of all completed work and waives the right to file a complaint
- B. Yes, but only if the contractor provided a written final inspection report that the homeowner signed at completion
- C. No, but the homeowner must first attempt mediation through a CCB-approved mediator before the complaint is accepted
- D. No, full payment does not waive the homeowner's right to file a complaint with the CCB for defective workmanship

2. A contractor is preparing a cost estimate for a commercial warehouse project. The owner provides schematic-level drawings with minimal detail. Which type of estimate is most appropriate at this early stage of design development?

- A. A detailed unit-cost estimate with full material takeoffs and labor hour calculations for each building system
- B. A conceptual or parametric estimate that uses cost-per-square-foot data from similar completed warehouse projects
- C. A fixed-price lump sum estimate that the contractor guarantees will not change as the design progresses further
- D. A final bid-ready estimate based on complete subcontractor pricing and competitive material supplier quotations

3. An Oregon contractor hires a worker and provides all tools, sets the daily schedule, and directs the sequence of tasks. The contractor classifies the worker as an independent contractor

to avoid payroll obligations. If the worker is injured on the job, what is the most significant legal risk the contractor faces?

- A. A fine from the CCB for failing to register the worker as a licensed subcontractor on the active project
- B. A civil lawsuit from the worker for pain and suffering damages that are normally barred under workers' compensation
- C. An OSHA citation for failing to provide the required ten-hour safety training course to the independent contractor
- D. Liability for workers' compensation benefits as the statutory employer because the worker meets the legal definition of an employee

4. Under Oregon's residential construction contract requirements, a contractor must include a specific notice informing the homeowner of their rights. Which of the following accurately describes this mandatory notice?

- A. The Information Notice to Owner, which informs the homeowner of their right to file a complaint with the CCB and includes the CCB contact information
- B. A notice guaranteeing that the contractor will correct any defects discovered within five years of project completion
- C. A disclosure of every subcontractor's license number and insurance policy limits before the contract is signed
- D. A statement certifying that the contractor has no pending lawsuits or unresolved CCB complaints against them

5. A contractor is scheduling a commercial project and determines that installing the fire sprinkler system requires the mechanical contractor to coordinate with the electrical contractor for ceiling space allocation. The project manager schedules a coordination meeting between both trades before rough-in begins. This proactive approach is an example of which project management practice?

- A. Value engineering to reduce the overall project cost by eliminating redundant ceiling-mounted building systems
- B. Constructability review to determine whether the architectural design can be physically built as specified
- C. Quality assurance testing to verify that both the sprinkler and electrical systems meet building code requirements
- D. Trade coordination to prevent conflicts between building systems that share the same physical space in the ceiling

6. A contractor completes a residential project in Oregon and the homeowner refuses to pay the final twenty-two thousand dollars. The contractor decides to file a construction lien. Before filing the lien, the contractor must verify that which prerequisite has been met?

- A. The contractor must have sent a formal demand letter by certified mail at least fourteen days before filing the lien
- B. The contractor must have filed a complaint with the CCB and received a case number before filing the construction lien
- C. The contractor must have obtained a judgment in small claims court establishing the amount owed before filing the lien
- D. The contractor must have delivered the required preliminary notice within the statutory timeframe to preserve lien rights

7. A framing crew is working on the second floor of a residential structure. The floor opening for the future staircase measures four feet by ten feet and is currently unprotected. Under OSHA regulations, what protection is required for this floor opening?

- A. A warning sign posted within six feet of the opening is sufficient if all workers on the floor are informed verbally
- B. Orange safety cones placed around the perimeter of the opening at two-foot intervals meet the protection requirement
- C. A standard guardrail system or a secured cover capable of supporting twice the weight of workers and equipment that may cross it
- D. A temporary rope barrier at knee height around three sides of the opening with the fourth side left open for access

8. A contractor receives a change order request from the project owner to add a bathroom to a commercial tenant improvement project. The change order increases the contract price by thirty-five thousand dollars. Before proceeding, what documentation should the contractor prepare?

- A. An informal email to the owner confirming the price increase and a verbal start date for the additional work
- B. A written change order that details the scope of additional work, the cost breakdown, the schedule impact, and requires the signatures of both the contractor and the owner
- C. A separate standalone contract for the bathroom addition that is independent from the original tenant improvement agreement
- D. A revised project schedule showing the bathroom addition but without modifying the original contract price or terms

9. An Oregon contractor operating as a general partnership wants to limit the personal liability of the partners. The partners are considering restructuring the business. Which business structure would protect each partner's personal assets from the debts and liabilities of the construction business?

- A. Converting to a sole proprietorship under one partner's name while the other partner serves as a salaried employee
- B. Registering the partnership as a joint venture for each individual project to isolate liability on a per-project basis
- C. Forming a limited liability company or corporation, which creates a legal separation between personal and business assets
- D. Adding an additional general partner to distribute the financial risk among a larger number of business owners

10. A contractor is performing demolition on a building constructed in nineteen fifty-eight. Before beginning interior demolition, the contractor must address the potential presence of which hazardous material that was commonly used in buildings of this era?

- A. Formaldehyde-based adhesives used exclusively in post-nineteen seventy-five manufactured wood panel products
- B. Polyvinyl chloride off-gassing from modern vinyl flooring products installed during recent renovation projects
- C. Synthetic mineral fibers from fiberglass insulation batts that replaced earlier insulation materials in that decade
- D. Asbestos-containing materials found in pipe insulation, floor tiles, joint compound, and textured ceiling finishes

11. A contractor's project has a budgeted cost at completion of four hundred thousand dollars. At the midpoint of the project, the earned value is one hundred eighty thousand dollars, the planned value is two hundred thousand dollars, and the actual cost is two hundred ten thousand dollars. What does the cost performance index reveal about this project?

- A. The project is on budget because the cost performance index equals one point zero based on the available data
- B. The project is under budget with a cost performance index of one point seventeen indicating favorable cost performance
- C. The data is insufficient to calculate the cost performance index without knowing the remaining budget contingency
- D. The project is over budget because the cost performance index is approximately zero point eight-six, meaning each dollar spent is producing only eighty-six cents of earned value

12. Under Oregon law, a homeowner hires a contractor for a residential addition with a contract price of sixty-five thousand dollars. The contract does not specify a down payment amount. What is the maximum initial payment the contractor may collect before starting work?

- A. Six thousand five hundred dollars, which equals ten percent of the total contract price for the residential project
- B. Five thousand dollars, which is the standard maximum down payment regardless of total contract price in Oregon
- C. One thousand dollars, because when the contract does not specify a different amount, the statutory default maximum applies
- D. There is no maximum because the down payment limit only applies when the contract explicitly addresses payment terms

13. A contractor is installing a temporary guardrail system on a commercial construction project. Under OSHA regulations, what is the minimum height requirement for the top rail of a guardrail system used for fall protection?

- A. Forty-two inches above the walking or working surface, plus or minus three inches as permitted by the standard
- B. Thirty-six inches above the walking or working surface measured from the top of the rail to the floor level
- C. Forty-eight inches above the walking or working surface to provide additional protection on commercial projects
- D. Thirty inches above the walking or working surface when used in conjunction with a personal fall arrest system

14. A subcontractor on a public works project in Oregon discovers that the general contractor has not been submitting certified payroll records to the contracting agency as required. What should the subcontractor do?

- A. Continue working and assume the general contractor will correct the payroll reporting before the project is completed
- B. Withhold their own certified payroll records until the general contractor submits the missing reports to the agency
- C. Report the non-compliance to the contracting agency or BOLI because certified payroll submission is required by law on prevailing wage projects
- D. Reduce their workforce to avoid exposure to any potential penalties associated with the general contractor's violation

15. A contractor completes a residential roofing project and provides the homeowner with a written warranty covering materials and workmanship for a period of five years. Two years later, the homeowner discovers a leak caused by improper flashing installation. The contractor has since gone out of business. What recourse does the homeowner have?

- A. The homeowner has no recourse because the contractor's closure eliminates all warranty obligations permanently
- B. The homeowner may file a claim against the contractor's surety bond on file with the CCB, provided the claim falls within the applicable filing period
- C. The homeowner must hire a new contractor to repair the leak and cannot recover costs from any other source
- D. The homeowner may file a claim only against the roofing material manufacturer's warranty and not against the contractor

16. A project owner requires the contractor to provide a payment bond on a commercial construction project. Which parties are protected by the payment bond?

- A. The project owner and the architect are protected against construction defects discovered after substantial completion
- B. Subcontractors, laborers, and material suppliers who provide work and materials to the project are protected against nonpayment
- C. The contractor's employees are protected against workplace injuries that occur during construction of the project
- D. The lending institution providing construction financing is protected against default on the construction loan payments

17. A contractor is calculating the amount of paint needed for the exterior walls of a rectangular commercial building. The building measures one hundred twenty feet long, sixty feet wide, and twenty feet high. There are eight windows measuring four feet by six feet each and two doors measuring three feet by seven feet each. What is the net paintable wall area?

- A. Six thousand seven hundred sixty-six square feet after subtracting the combined area of all window and door openings
- B. Seven thousand two hundred square feet without deducting any openings from the gross exterior wall area calculation
- C. Five thousand eight hundred square feet after deducting a twenty percent allowance for all openings and architectural features
- D. Six thousand four hundred square feet after deducting only the window areas but not the door areas from the total

18. A general contractor on a large commercial project discovers that a structural steel subcontractor has been fabricating beams using a different steel grade than specified in the structural drawings. The substitution was not approved by the structural engineer. What is the contractor's immediate obligation?

- A. Accept the substitution if the alternative steel grade has a higher yield strength than the specified material
- B. Document the substitution and continue erection while submitting a retroactive substitution request to the engineer
- C. Notify the steel supplier to ship replacement material and charge the cost to the project contingency fund
- D. Stop the steel erection in the affected areas immediately, notify the structural engineer, and do not proceed until the engineer evaluates and provides direction

19. Under Oregon employment law, an employer terminates an employee for cause due to documented policy violations. What is the employer's obligation regarding the final paycheck?

- A. The employer must pay all earned wages within thirty calendar days following the termination date
- B. The employer may withhold the final paycheck until the employee returns all company-owned tools and equipment
- C. The employer must pay all earned and unpaid wages no later than the end of the first business day after the termination date, or immediately if adequate notice was given
- D. The employer must pay all earned wages within five business days following the date of the termination meeting

20. A contractor is reviewing bid documents for a public school project and discovers that the specifications include an allowance of fifteen thousand dollars for unforeseen utility relocation. How should the contractor handle this allowance in their bid?

- A. Exclude the allowance from the bid total because it represents contingency funds controlled exclusively by the owner
- B. Add a fifteen percent markup to the allowance amount and include thirty-two thousand two hundred fifty dollars in the bid
- C. Reduce the allowance by the estimated probability of utility conflicts and include only the adjusted amount in the bid
- D. Include the full fifteen thousand dollar allowance in the bid total at face value as specified in the bid documents

21. A contractor hires a concrete finishing subcontractor who carries general liability insurance but does not carry workers' compensation insurance. The subcontractor has three employees. Under Oregon law, what is the consequence for the subcontractor?

- A. No consequence because subcontractors with fewer than five employees are exempt from workers' compensation requirements
- B. The subcontractor is in compliance because general liability insurance provides equivalent coverage for workplace injuries
- C. The subcontractor is in violation of Oregon law because employers with one or more employees must carry workers' compensation insurance unless specifically exempt
- D. The subcontractor may continue working if they sign a waiver acknowledging the absence of workers' compensation coverage

22. A contractor is managing a commercial project and receives a request for information from the owner asking for documentation of all installed fire-rated assemblies. Which document provides the contractor with the specific fire-rating requirements for each assembly?

- A. The project schedule showing the installation sequence and duration of all fire-rated assembly installations
- B. The geotechnical report prepared by the soils engineer during the preconstruction investigation phase of the project
- C. The project specifications and architectural drawings, which detail the required fire-resistance ratings for walls, floors, and ceiling assemblies throughout the building
- D. The contractor's quality control plan that outlines the inspection procedures for all building envelope components

23. A contractor operating as a limited liability company in Oregon needs to renew the CCB license. The renewal period for Oregon CCB licenses is which of the following?

- A. Annually on the anniversary date of the original license issuance with a thirty-day grace period allowed
- B. Every two years, with the renewal date based on the original license issuance date as established by the CCB
- C. Every three years with a mandatory continuing education requirement of twenty-four hours before each renewal
- D. Every five years with a comprehensive re-examination required at each renewal to verify current knowledge

24. A contractor is reviewing a construction contract and finds a liquidated damages clause that specifies one thousand dollars per calendar day for each day the project extends beyond the contractual completion date. Under what condition is this clause generally enforceable?

- A. When the amount represents a reasonable estimate of the actual damages the owner would suffer from the delay and actual damages would be difficult to calculate precisely
- B. When the contractor agrees to the clause verbally during the pre-bid conference even if it is not included in the signed contract
- C. Only when the total accumulated liquidated damages do not exceed five percent of the original total contract price
- D. Only when the project owner can prove the exact dollar amount of actual damages suffered for each day of delay

25. A contractor installs a residential water heater and connects it to the existing gas line. The building inspector rejects the installation because the contractor did not obtain a separate plumbing permit for the water heater replacement. Under Oregon building codes, when is a permit required for water heater installation?

- A. Only when the water heater exceeds seventy-five gallons in capacity or requires a new gas line to be installed
- B. A permit is generally required for water heater installation because it involves plumbing connections and potentially gas piping that must be inspected for code compliance
- C. Only when the water heater is relocated to a different room from its original installation location within the house
- D. Permits for water heater replacements are waived when the new unit matches the same fuel type and capacity as the original

26. A contractor's employee is exposed to excessive noise levels on a construction site where concrete cutting is being performed. Under OSHA regulations, at what noise exposure level must the employer implement a hearing conservation program?

- A. When noise levels exceed seventy decibels averaged over a four-hour work period during active construction operations
- B. When employees are exposed to noise levels at or above eighty-five decibels averaged over an eight-hour time-weighted average
- C. When any single noise event exceeds one hundred decibels regardless of the total duration of the noise exposure
- D. When three or more workers on the same crew submit written complaints about noise levels on the active project site

27. A contractor is bidding on a project that requires a surety bond. The surety company evaluates the contractor before issuing the bond. Which of the following factors is most critical in the surety's underwriting decision?

- A. The number of employees the contractor currently has on payroll across all active construction project sites
- B. The geographic distance between the contractor's main office and the proposed project location for the new bond
- C. The contractor's financial strength, track record of completing projects successfully, and character and reputation in the industry
- D. The total number of CCB complaints filed against the contractor during the current and prior license renewal periods

28. A project manager discovers that a critical material delivery will be delayed by three weeks due to a manufacturer's production backlog. The project schedule cannot absorb the delay without extending the completion date. Which contract provision most directly governs the contractor's right to a time extension?

- A. The warranty clause that guarantees the quality and timeliness of all materials specified for the construction project
- B. The indemnification clause that allocates responsibility for third-party claims arising from project-related delays
- C. The force majeure or excusable delay clause, which defines events beyond the contractor's control that may entitle the contractor to additional time
- D. The retainage clause that governs the percentage of each payment withheld by the owner until project completion

29. A contractor is working on a residential remodel and discovers that the existing electrical panel has Federal Pacific Stab-Lok breakers, which are known to have a high failure rate. The remodel scope does not include electrical panel replacement. What is the contractor's professional obligation?

- A. Replace the panel at no charge to the homeowner because the contractor has a legal duty to correct all known hazards
- B. Ignore the panel because it is outside the contracted scope of work and the contractor has no obligation to comment
- C. File a complaint with the local building department requiring the homeowner to replace the panel before occupancy
- D. Inform the homeowner in writing about the known safety concerns with the panel and recommend evaluation by a licensed electrician

30. A contractor is calculating the cost of concrete for a residential driveway. The driveway is forty-eight feet long, fourteen feet wide, and five inches thick. Concrete costs one hundred fifty dollars per cubic yard delivered. What is the approximate material cost?

- A. One thousand six hundred fifty dollars based on eleven cubic yards of concrete delivered to the project site
- B. Two thousand one hundred dollars based on fourteen cubic yards of concrete at the quoted unit price delivered
- C. One thousand five hundred dollars based on approximately ten-point-four cubic yards at the quoted price per yard
- D. One thousand eight hundred dollars based on twelve cubic yards of concrete at the quoted unit price delivered

31. Under Oregon construction lien law, a contractor files a valid construction lien against a residential property. What is the deadline for the contractor to file a lien foreclosure action in court after filing the lien?

- A. Within one hundred twenty days after the date the lien was filed with the county recording office
- B. Within sixty calendar days after the property owner receives formal notice of the filed construction lien claim
- C. Within ninety calendar days after the contractor delivers a copy of the filed lien to the property owner's address
- D. Within one year after the original contract completion date specified in the signed construction contract agreement

32. A contractor is managing a project and uses the last planner system for weekly work planning. What is the primary benefit of this planning approach compared to traditional scheduling methods?

- A. It eliminates the need for a master project schedule because all planning is done on a weekly rolling basis
- B. It transfers scheduling responsibility from the project manager to the project owner for all weekly planning decisions
- C. It reduces the total project duration by automatically compressing all activities to their shortest possible duration
- D. It improves workflow reliability by requiring each trade to commit only to work that can actually be completed in the upcoming week based on prerequisite readiness

33. A contractor's employee reports that a coworker is not wearing required fall protection while working on a roof. The employer investigates and confirms the violation. Under OSHA regulations, who bears primary responsibility for ensuring employees use required personal protective equipment?

- A. The employer bears primary responsibility for ensuring that employees use required personal protective equipment and must enforce compliance through training, supervision, and disciplinary action
- B. The individual employee bears sole responsibility because each worker is personally accountable for their own safety equipment
- C. The safety equipment manufacturer bears responsibility if the equipment was delivered without proper usage instructions
- D. OSHA bears responsibility because the agency must conduct inspections to verify that workers are wearing required equipment

34. A contractor is awarded a design-build contract for a commercial office building. How does this project delivery method differ from the traditional design-bid-build approach?

- A. The owner hires separate design and construction firms who work independently under separate contracts and scopes
- B. The design is completed by the owner's architect and the contractor bids only on the construction phase of the project
- C. The contractor serves only as the construction manager and has no responsibility for the design or engineering work
- D. A single entity is responsible for both the design and construction of the project, providing a single point of accountability to the owner

35. An Oregon contractor is working on a public improvement project and a first-tier subcontractor submits a payment request. Under Oregon's prompt payment statute for public improvement projects, within how many days must the contractor pay an approved subcontractor invoice?

- A. Within thirty calendar days of receiving the subcontractor's complete and accurate payment application on the project
- B. Within forty-five calendar days of the general contractor receiving payment from the contracting agency for the work
- C. Within seven business days of the general contractor approving the subcontractor's payment application for review
- D. Within ten calendar days of receiving payment from the contracting agency for the subcontractor's portion of work

36. A contractor is performing a preconstruction site analysis for a new residential home. The soil report indicates expansive clay soils on the property. Which foundation design consideration is most important for this soil condition?

- A. Designing the foundation to accommodate soil movement through deeper footings, reinforced slabs, or post-tension systems that resist the swelling and shrinking of expansive clay
- B. Reducing the foundation depth to minimize contact between the concrete footings and the expansive clay soil layer
- C. Installing standard spread footings without modification because expansive soils affect only the landscaping and grading
- D. Eliminating all drainage provisions because expansive clay soils absorb water rapidly and do not require managed drainage

37. A contractor has a workers' compensation experience modification rate of one point three-five. What does this rating indicate about the contractor's safety history compared to the industry average?

- A. The contractor's claims experience is thirty-five percent below the industry average indicating excellent safety performance
- B. The contractor's insurance premium is fixed at one hundred thirty-five dollars per employee per month regardless of payroll
- C. The contractor's claims experience is thirty-five percent worse than the industry average, resulting in higher insurance premiums than similarly sized contractors
- D. The contractor has had exactly thirty-five workers' compensation claims filed during the current policy rating period

38. A residential contractor in Oregon advertises a twenty percent discount on all kitchen remodels during a holiday promotion. After signing a contract with a homeowner at the discounted price, the contractor later attempts to add a surcharge claiming the discount was applied in error. Under Oregon's Unlawful Trade Practices Act, what is the legal status of this surcharge?

- A. The surcharge is permitted if the contractor provides written notice within ten business days of the contract signing date
- B. The surcharge is allowed if the contractor can prove the discount was not intended to apply to that scope of work
- C. The surcharge is permitted only if the total contract price remains below the original non-discounted estimate amount
- D. The surcharge may constitute an unlawful trade practice because the contractor is bound by the advertised price that was incorporated into the signed contract

39. An OSHA compliance officer arrives at a construction site to conduct an inspection after receiving an employee complaint about unsafe scaffolding. The contractor's site superintendent is present. What rights does the contractor have during this inspection?

- A. The right to postpone the inspection for seventy-two hours to consult with legal counsel before the walkaround begins
- B. The right to accompany the compliance officer during the walkaround inspection and to have an employee representative participate
- C. The right to prohibit the compliance officer from photographing any portion of the jobsite during the inspection
- D. The right to require the compliance officer to inspect only the scaffolding referenced in the complaint and no other areas

40. A contractor is estimating the labor cost for installing ceramic floor tile in a commercial restroom. The restroom floor area is three hundred twenty square feet. The tile crew installs an average of eighty square feet per day. The two-person crew earns a combined daily rate of nine hundred sixty dollars. What is the estimated labor cost for the tile installation?

- A. Three thousand eight hundred forty dollars based on four days of labor at the combined daily crew rate for the two-person team
- B. Two thousand eight hundred eighty dollars based on three days of labor at the combined daily crew rate for both installers
- C. Four thousand eight hundred dollars based on five days of labor at the combined daily crew rate for the tile installation
- D. One thousand nine hundred twenty dollars based on two days of labor at the combined daily crew rate for the project

41. A contractor is installing a commercial HVAC system and the specifications require seismic bracing for all ductwork runs exceeding twelve inches in diameter. The project is located in seismic design category D. If the contractor omits the seismic bracing, what is the potential consequence?

- A. The installation passes inspection because seismic bracing is optional for ductwork in all commercial building applications
- B. The building inspector may issue a conditional approval allowing occupancy while the bracing is installed within sixty days
- C. The contractor receives a verbal warning but the installation is accepted if all other HVAC components pass inspection

D. The installation fails inspection because seismic bracing is a code requirement in the specified seismic design category and must be installed before approval

42. A homeowner asks a contractor to provide a warranty on a residential construction project. Under Oregon law, which of the following accurately describes the contractor's warranty obligation?

A. Oregon law implies a warranty of workmanlike construction on residential projects, meaning the work must be performed in a competent manner consistent with industry standards

B. Contractors in Oregon have no implied warranty obligations unless a written warranty is explicitly included in the signed contract

C. The statutory warranty period in Oregon is exactly twelve months from the date of substantial completion regardless of defect type

D. Warranty obligations apply only to structural components and do not extend to finish materials, fixtures, or mechanical systems

43. A contractor's bookkeeper discovers that quarterly payroll tax deposits have not been submitted to the IRS for the past two quarters. What is the most serious potential consequence of this failure?

A. The IRS issues a standard reminder notice with no penalty if the deposits are made within ten calendar days

B. The contractor receives a reduced penalty if they voluntarily disclose the missed deposits before the IRS initiates an audit

C. The IRS may assess a trust fund recovery penalty against the responsible individuals who were required to collect, account for, and remit the withheld employment taxes

D. The contractor's CCB license is automatically suspended until all delinquent payroll tax deposits are brought current

44. A project manager is reviewing the project's work breakdown structure and needs to assign cost accounts to each work package. What is the primary purpose of assigning cost accounts in the work breakdown structure?

A. To link each work package to a specific budget line item so that costs can be tracked, monitored, and controlled at the work package level throughout the project

B. To determine the order in which subcontractors will be mobilized and demobilized during the construction phase

C. To calculate the overall project profit margin by comparing estimated costs to actual revenue at the total project level

D. To establish the contractual payment milestones between the owner and the contractor for monthly progress billing

45. An Oregon contractor is performing a residential bathroom remodel and discovers extensive mold behind the shower walls during demolition. The mold appears to cover approximately forty square feet. What is the contractor's appropriate course of action?

A. Remove the mold using household bleach and standard construction cleanup procedures before installing new materials

B. Stop work in the affected area, inform the homeowner of the discovery, and recommend that a qualified mold remediation professional assess and remediate the contamination before construction resumes

C. Cover the moldy area with new moisture-resistant drywall and apply a mold-inhibiting primer over the existing growth

D. Continue with the remodel as planned because mold behind shower walls is a cosmetic issue that new materials will cover

46. Under Oregon law, a contractor who performs residential construction work without a valid CCB license is subject to which of the following consequences?

A. A written warning from the CCB for the first offense with no monetary penalty assessed against the unlicensed individual

B. Mandatory enrollment in a CCB-approved contractor licensing course with a six-month grace period to obtain the license

C. A prohibition from filing a construction lien but no other legal consequence for performing work without a valid license

D. Civil penalties, inability to file a construction lien for the work performed, and potential criminal prosecution for unlicensed activity

47. A contractor is building a retaining wall on a residential property. The wall will be four feet six inches high and will retain a sloped grade behind it. Under Oregon building codes, does this retaining wall require a building permit?

A. No, because retaining walls under six feet in height are exempt from permit requirements in all circumstances

B. Yes, because retaining walls exceeding four feet in height measured from the bottom of the footing to the top of the wall generally require a building permit

C. No, because retaining walls on residential properties are classified as landscaping improvements and are exempt from permits

D. Yes, but only if the retaining wall supports a surcharge load from a structure, driveway, or other improvement above

48. A contractor submits a progress payment application on a commercial project. The owner's representative reviews the application and disputes the percentage of completion claimed for the mechanical work. What is the standard process for resolving this dispute?

A. The owner pays the undisputed portion of the application promptly while the disputed amount is resolved through review and negotiation between the parties

B. The owner withholds the entire payment application until the disputed mechanical percentage is resolved through arbitration

C. The contractor files a stop-work notice and suspends all project activities until the full payment application is approved

D. The architect makes the final determination on percentage complete and neither the owner nor contractor may dispute it

49. A residential contractor in Oregon is required to carry a surety bond as a condition of CCB licensure. If a homeowner suffers financial loss due to the contractor's breach of contract, the homeowner may file a claim against the bond. What is the surety company's role when a valid claim is filed?

A. The surety company investigates the claim and may pay the homeowner up to the bond amount, then seeks reimbursement from the contractor for the amount paid

B. The surety company serves only as a mediator between the homeowner and the contractor and does not make payments

C. The surety company pays the claim from a pooled fund contributed by all bonded contractors and no individual contractor is liable

D. The surety company defends the contractor against the claim at no cost and covers all legal fees regardless of the outcome

50. A contractor is performing a concrete pour for a commercial building foundation. The structural specifications require concrete with a minimum compressive strength of four thousand psi at twenty-eight days. The contractor orders concrete with a compressive strength of three thousand psi to reduce costs. What is the primary risk of this substitution?

A. The three thousand psi concrete will cure faster than specified, causing premature cracking in the foundation walls

B. The building inspector will require the contractor to add additional rebar to compensate for the reduced concrete strength

- C. The concrete supplier will refuse to deliver three thousand psi concrete for a commercial foundation application
- D. The foundation may fail to support the design loads, creating a structural safety hazard that violates the approved structural drawings and building code

51. A contractor is preparing a safety plan for a project that involves lead paint disturbance in a residential renovation. Under EPA's Renovation, Repair, and Painting Rule, what certification is required?

- A. Each individual worker must hold a personal EPA lead-safe certification obtained through an accredited online testing program
- B. Only the project owner must certify that they are aware of the lead paint presence before the contractor begins the work
- C. The contracting firm must be EPA-certified as a lead-safe renovation firm and must assign a certified renovator to the project
- D. The local health department must certify the project site as lead-safe before any renovation work may commence on the property

52. A contractor is reviewing a construction contract and finds a no-damage-for-delay clause. What limitation does this clause place on the contractor?

- A. The contractor cannot claim additional costs for any project delays but retains the right to accelerate at the owner's expense
- B. The contractor must complete the project by the original completion date regardless of any delays that occur during construction
- C. The contractor may receive a time extension for excusable delays but generally cannot recover monetary compensation for delay-related costs from the owner
- D. The contractor cannot request any schedule changes after the notice to proceed is issued by the project owner

53. Under Oregon law, what is the contractor's obligation when a residential construction project requires work that will cost more than the original contract price due to unforeseen conditions discovered during construction?

- A. The contractor must obtain written authorization from the homeowner through a change order before performing work that increases the contract price beyond the original agreed amount
- B. The contractor may proceed with the additional work and add the cost to the final invoice without prior written approval

- C. The contractor must absorb all additional costs because unforeseen conditions are always the contractor's risk on residential projects
- D. The contractor must stop all work permanently and renegotiate the entire contract from the beginning with revised terms

54. A contractor is building a commercial structure and the specifications call for type X fire-rated gypsum board on all corridor walls. The contractor installs standard gypsum board instead. During inspection, the building inspector rejects the installation. Why was the installation rejected?

- A. Standard gypsum board does not meet the fire-resistance requirements specified for corridor walls, and type X gypsum board contains glass fiber reinforcement that provides the required fire rating
- B. Standard gypsum board is acceptable on corridor walls when used with fire-rated joint compound and tape products
- C. The inspector rejected the installation because the gypsum board was not manufactured by the brand specified in the submittal
- D. Standard gypsum board is only rejected when installed on walls that exceed twelve feet in height in commercial corridor applications

55. A contractor's project is governed by a cost-plus contract with a guaranteed maximum price of five hundred thousand dollars. At project completion, the total documented direct costs are four hundred twenty thousand dollars and the contractor's fee is twelve percent. What is the total cost to the owner?

- A. Five hundred thousand dollars because the guaranteed maximum price is the amount the owner pays regardless of actual costs
- B. Four hundred seventy thousand four hundred dollars, calculated as the direct costs plus the twelve percent fee, which is below the guaranteed maximum price
- C. Five hundred four thousand dollars, calculated as the direct costs plus the percentage fee plus a three percent contingency
- D. Four hundred twenty thousand dollars because the contractor's fee is waived when costs come in below the guaranteed maximum

56. A contractor needs to install anchor bolts in a concrete foundation to secure the wood sill plate. The building code requires anchor bolts at specific intervals. What is the standard maximum spacing for foundation anchor bolts on a residential wood-framed structure?

- A. Four feet on center with an anchor bolt within twelve inches of each corner and each end of the sill plate member

- B. Eight feet on center with no specific requirement for bolt placement at corners or plate ends along the wall
- C. Six feet on center with an anchor bolt required within twelve inches of each end of each sill plate piece
- D. Three feet on center for exterior bearing walls and four feet on center for interior non-bearing partition walls

57. A contractor is operating a crane on a commercial construction site. Under OSHA crane safety regulations, which of the following is a mandatory requirement before each shift the crane is used?

- A. A full structural inspection of the crane by a third-party certified crane inspector before each operational shift
- B. Submission of a written crane operation plan to OSHA twenty-four hours before the crane is used on each shift
- C. A visual inspection by a competent person to identify any deficiencies that could affect the safe operation of the crane
- D. Calibration of all load moment indicators by the crane manufacturer's authorized service technician before each use

58. A contractor is reviewing the Americans with Disabilities Act requirements for a commercial building renovation. The existing restroom does not meet current ADA accessibility standards. Under what circumstances must the restroom be brought into ADA compliance during the renovation?

- A. When the renovation affects the area served by the restroom and the cost of accessibility modifications does not exceed a disproportionate percentage of the total renovation cost
- B. Only when the total renovation cost exceeds one million dollars for the entire commercial building project
- C. Only when the building owner receives a formal complaint from a person with a disability regarding the specific restroom
- D. ADA compliance is required only for newly constructed buildings and does not apply to renovations of existing structures

59. A contractor discovers that a recently completed concrete floor slab has developed cracks exceeding one-quarter inch in width within the first sixty days after placement. The specifications call for a maximum crack width of one-eighth inch. What type of deficiency does this represent?

- A. An aesthetic deficiency that has no impact on the structural performance or serviceability of the concrete floor slab
- B. A latent defect that could not have been detected during the construction phase or the initial concrete curing period
- C. An expected condition because all concrete cracks during curing and the width specification is aspirational and unenforceable
- D. A construction deficiency that fails to meet the specification requirement and may indicate issues with the concrete mix, curing procedures, joint spacing, or reinforcement placement

60. Under Oregon employment law, employers must provide employees with rest periods during the workday. How frequently must rest periods be provided to employees working a standard eight-hour shift?

- A. A paid rest period of at least ten minutes must be provided for every four hours of work or major fraction thereof
- B. A single unpaid rest period of twenty minutes is required at the midpoint of the eight-hour shift for all employees
- C. Rest periods are only required for employees performing physical labor and are optional for administrative workers
- D. Two paid rest periods of five minutes each are required during an eight-hour shift at the employer's discretion

61. A contractor is managing a residential project and the homeowner makes a verbal request to change the flooring material from hardwood to tile throughout the entire first floor. The cost difference is minimal. Should the contractor proceed based on the verbal request?

- A. Yes, because verbal change authorizations are legally binding on residential projects when the cost difference is minimal
- B. No, the contractor should document the change in a written change order signed by both parties before proceeding, regardless of the cost impact
- C. Yes, because Oregon law exempts scope changes under one thousand dollars from the written change order requirement
- D. No, the contractor should file the change with the CCB for approval before modifying any aspect of the original contract

62. A contractor is estimating a project and needs to calculate the number of concrete masonry units required for a wall. The wall is sixty feet long and eight feet high. Standard CMU blocks measure sixteen inches long by eight inches high. Assuming a running bond pattern and no waste factor, approximately how many blocks are needed?

- A. Approximately four hundred fifty blocks based on the wall dimensions divided by the face area of each individual block
- B. Three hundred sixty blocks based on applying a thirty percent reduction for the running bond pattern overlap
- C. Six hundred blocks based on doubling the calculated quantity to account for both sides of the wall structure
- D. Five hundred forty blocks based on the wall area divided by the block face area plus a standard waste factor

63. A contractor is working on a commercial project and the building inspector discovers that fire caulking has not been installed at electrical penetrations through fire-rated walls. The inspector issues a correction notice. Why is fire caulking required at these penetrations?

- A. Fire caulking prevents moisture intrusion through the wall penetrations which can damage the electrical wiring insulation
- B. Fire caulking maintains the fire-resistance rating of the wall assembly by sealing openings that would otherwise allow fire and smoke to spread between compartments
- C. Fire caulking is an aesthetic requirement that provides a finished appearance at visible wall penetrations in commercial spaces
- D. Fire caulking is required only for plumbing penetrations and is optional for electrical conduit passing through fire-rated walls

64. A contractor operating in Oregon is hired by a property management company to perform maintenance and repairs on multiple rental properties under an ongoing service agreement. The contractor invoices monthly for all work performed. Under Oregon CCB law, does this arrangement require a CCB license?

- A. No, because ongoing maintenance agreements are classified as service contracts and are exempt from CCB licensing requirements
- B. Yes, because performing construction, repair, or maintenance work for compensation on properties owned by others requires a CCB license
- C. No, because property management companies are responsible for licensing and the contractor works under their umbrella license
- D. Yes, but only if any single monthly invoice exceeds five hundred dollars for the maintenance work performed during that period

65. A contractor is building a residential addition and discovers that the lot coverage exceeds the maximum percentage allowed by the local zoning ordinance. The addition as designed would place the total building footprint at forty-five percent lot coverage where the zoning allows a maximum of forty percent. What must the contractor do?

- A. Proceed with the addition as designed and request a retroactive zoning amendment after construction is completed
- B. Reduce the addition footprint by five percent and proceed with construction without notifying the building department
- C. Stop work and notify the owner that the addition cannot be built as designed without obtaining a zoning variance or modifying the plans to comply with the lot coverage limit
- D. Continue construction because lot coverage limits are guidelines and the building department does not enforce them

66. A general contractor has a subcontract agreement with a painting contractor. The subcontract includes a provision requiring the painting contractor to maintain completed operations coverage on their general liability policy. What does completed operations coverage protect against?

- A. Claims for bodily injury or property damage arising from the painting contractor's work after the work has been completed and the contractor has left the project site
- B. Claims for damage to the painting contractor's own tools and equipment while stored on the active construction site
- C. Claims for injuries to the painting contractor's employees that occur while actively performing the painting work
- D. Claims for delays caused by the painting contractor that impact the overall project schedule and completion date

67. A project owner terminates a construction contract for convenience midway through the project. Under standard contract terms, what is the contractor entitled to receive?

- A. Only the costs incurred up to the termination date with no compensation for overhead, profit, or demobilization expenses
- B. The full original contract price as if the project had been completed because the termination was not caused by the contractor
- C. Compensation for work completed plus a ten percent penalty fee assessed against the owner for the early termination
- D. Payment for all work completed, costs incurred, overhead, profit on completed work, and reasonable demobilization costs as provided in the contract terms

68. A contractor is installing residential electrical wiring and needs to determine the proper wire size for a dedicated twenty-ampere kitchen appliance circuit with a run length of forty feet. Under the National Electrical Code, what is the minimum wire size for this circuit?

- A. Number twelve AWG copper wire, which is rated for twenty-ampere circuits and is adequate for the specified run length
- B. Number fourteen AWG copper wire, which is the standard minimum for all residential branch circuit wiring installations
- C. Number ten AWG copper wire, which is required for all kitchen circuits regardless of the amperage rating of the circuit
- D. Number eight AWG copper wire, which is necessary to prevent voltage drop on runs exceeding thirty-five feet in length

69. A contractor is managing a project and discovers that the architectural drawings conflict with the structural drawings at a beam-to-column connection detail. Which document typically takes precedence when there is a conflict between project documents?

- A. The architectural drawings always take precedence because the architect is the designer of record for the overall project
- B. The specifications typically take precedence over the drawings, and the contractor should notify the architect to issue a clarification through a request for information
- C. The structural drawings always take precedence because structural integrity supersedes all architectural design considerations
- D. The contractor chooses whichever document allows the least expensive installation and proceeds without notification

70. Under Oregon law, a person who provides labor, materials, or equipment to a construction project may file a construction lien against the property. Which of the following parties is NOT eligible to file a construction lien in Oregon?

- A. A material supplier who provided lumber to the project but did not deliver the required preliminary lien notice on time
- B. A licensed electrician subcontractor who performed rough-in wiring and has not been paid for the completed work
- C. A person who performed construction work without a valid CCB license and is seeking payment for the labor provided
- D. A general contractor who completed the project and sent the required notices but has not received the final payment

71. A contractor's project schedule shows that the plumbing rough-in has ten days of total float. The plumbing subcontractor wants to delay the start of rough-in by twelve days to accommodate another project commitment. What is the impact of this twelve-day delay?

- A. No impact because the float belongs to the subcontractor and they may use it at their discretion for scheduling purposes
- B. The delay exceeds available float by two days, which will push the project completion date back by two days unless corrective action is taken
- C. The float is automatically extended to twelve days when a subcontractor provides advance notice of the scheduling conflict
- D. The delay is absorbed by the project contingency time and has no effect on the critical path or the completion date

72. A contractor is preparing a job hazard analysis for a project that requires workers to install roofing materials on a commercial building with a roof height of thirty-five feet. Which fall protection method is required under OSHA regulations for this work?

- A. A warning line system is the only requirement for roofing work on commercial buildings at heights under fifty feet
- B. Fall protection is optional at this height if the workers have completed a documented four-hour fall protection awareness class
- C. A safety monitor system alone is sufficient for all roofing work regardless of height or the number of workers on the roof
- D. Workers must use guardrails, safety nets, or personal fall arrest systems because the work is being performed at a height exceeding six feet above a lower level

73. A contractor is reviewing the Oregon Residential Specialty Code for a home addition project. The code requires exterior walls to have a minimum thermal resistance of R-21 for framed wall cavities. The contractor plans to use standard fiberglass batt insulation. What cavity depth is required to achieve R-21 with standard fiberglass batts?

- A. A two-by-four wall cavity of three and one-half inches is adequate to achieve R-21 with high-density fiberglass batts
- B. A two-by-six wall cavity of five and one-half inches is typically required to accommodate R-21 fiberglass batt insulation
- C. A two-by-eight wall cavity of seven and one-quarter inches is the minimum required for R-21 with any fiberglass product
- D. A two-by-four wall cavity with an additional one-inch rigid foam sheathing equals R-21 without increasing the wall depth

74. A contractor is hired to build a custom home and the owner provides a set of architectural plans prepared by a licensed architect. During construction, the contractor discovers a design error in the roof framing plan that will cause a structural deficiency if built as drawn. What is the contractor's obligation?

- A. Build the roof exactly as drawn because the architect bears sole responsibility for design errors in the construction documents
- B. Modify the framing plan independently and submit an as-built drawing to the architect after the roof is completed and enclosed
- C. Stop the affected work, notify the architect and the owner of the discovered design error, and request a corrective revision before proceeding with the roof framing
- D. Continue construction and file a claim against the architect's professional liability insurance after the project is completed

75. A contractor is managing a project budget and discovers that actual labor costs are running fifteen percent above the original estimate halfway through the project. Which corrective action is most appropriate to bring the project back toward budget?

- A. Analyze the cause of the labor overrun, evaluate options such as adjusting crew sizes or work methods, negotiate with the owner for a change order if the overrun is caused by owner-directed changes, and implement corrective measures
- B. Reduce material quality across the project to offset the labor cost increase and maintain the original total project budget
- C. Terminate the lowest-paid workers immediately and hire replacements at a lower hourly rate regardless of skill level
- D. Ignore the variance because a fifteen percent overrun is within the normal range and will self-correct by project completion

76. Under Oregon's prompt payment requirements for private construction projects, what is the consequence for an owner who fails to pay a contractor's approved invoice within the time specified in the contract?

- A. The owner forfeits the right to withhold retainage for the remainder of the project duration and all future pay applications
- B. The contractor may be entitled to interest on the unpaid amount at the rate specified in the contract or by statute
- C. The contractor may immediately suspend all work without notice and demobilize all crews and equipment from the site
- D. The owner must pay a flat penalty of five thousand dollars for each invoice that is not paid within the specified period

77. A contractor operating as a corporation in Oregon has two shareholders who are also officers of the company. Both shareholders work on construction projects daily. Under Oregon workers' compensation law, what is the requirement for these working shareholders?

- A. Both shareholders are automatically exempt from workers' compensation because corporate officers cannot be classified as employees
- B. Both shareholders must be carried on the company's workers' compensation policy because they perform construction work
- C. Only the majority shareholder must be covered while the minority shareholder may elect an exemption from coverage
- D. Corporate officers who are also shareholders may elect to be exempt from workers' compensation coverage by filing the appropriate exemption with the insurer or the state

78. A contractor is performing quality control on a concrete placement and the batch ticket shows that the concrete truck arrived at the jobsite seventy-five minutes after the concrete was batched at the plant. The ambient temperature is eighty-eight degrees Fahrenheit. Under standard concrete placement guidelines, is this load acceptable?

- A. Yes, because concrete must be placed within two hours of batching regardless of ambient temperature conditions
- B. Yes, because the time limit applies only during winter months when cold temperatures slow the hydration of cement paste
- C. No, because concrete should typically be placed within ninety minutes of batching and high ambient temperatures may require a shorter delivery window, requiring the contractor to evaluate workability before acceptance
- D. No, because all concrete loads must be placed within thirty minutes of batching during summer months to prevent heat damage

79. A contractor is bidding a public works project and the bid documents require submission of a list of all first-tier subcontractors performing work exceeding a specified threshold. Under Oregon public contracting law, when must this subcontractor disclosure be submitted?

- A. Within seventy-two hours before the bid opening date to allow the contracting agency time to verify all listed subcontractors
- B. Within two hours after the bid closing time, or as specified in the solicitation documents, including the subcontractor name, CCB license number, and category of work
- C. At the mandatory pre-bid conference, which must be attended by both the general contractor and all listed subcontractors
- D. Within thirty calendar days after the notice to proceed is issued to allow the contractor time to finalize all subcontract agreements

80. A contractor is preparing a detailed estimate for a wood-framed residential house. The estimator needs to determine the number of sheets of OSB sheathing for the exterior walls. The

total exterior wall area is two thousand four hundred square feet, and each sheet of OSB measures four feet by eight feet. Allowing for a ten percent waste factor, how many sheets should be ordered?

- A. Seventy-five sheets based on the net wall area divided by the sheet area without any allowance for waste or cutting
- B. Eighty-three sheets based on the net quantity of seventy-five sheets plus a ten percent waste factor for cutting and fitting
- C. Sixty sheets based on reducing the total wall area by the estimated window and door opening percentages before dividing
- D. One hundred sheets based on applying a thirty-three percent waste factor to the net quantity for conservative estimating

## Practice Exam 15: Answer Key and Explanations

**1. D** — Full payment does not waive a homeowner's right to file a CCB complaint for defective workmanship. Oregon law allows homeowners to pursue complaints even after paying in full because defects may not be discovered until after the project is complete. The CCB complaint process exists to protect consumers regardless of the payment status of the contract.

**2. B** — At the schematic design stage with minimal detail, a conceptual or parametric estimate using cost-per-square-foot data from comparable projects is the most appropriate method. Detailed unit-cost estimates require complete drawings and specifications that do not yet exist. Parametric estimates provide a reasonable cost range that can be refined as the design develops further.

**3. D** — When a contractor controls the worker's schedule, provides tools, and directs the work, the worker meets the legal definition of an employee regardless of how the contractor classifies them. If the misclassified worker is injured, the contractor faces liability as the statutory employer for workers' compensation benefits. Misclassification exposes the contractor to penalties, back taxes, and full responsibility for injury claims.

**4. A** — Oregon law requires residential construction contracts to include the Information Notice to Owner, which informs the homeowner of their right to file a complaint with the CCB and provides the CCB's contact information. This mandatory disclosure ensures homeowners understand their consumer protection rights before work begins. Failure to include this notice can result in CCB enforcement action against the contractor.

**5. D** — Trade coordination is the proactive process of resolving conflicts between building systems that occupy the same physical space. Scheduling a coordination meeting between the mechanical and electrical contractors before rough-in prevents costly field conflicts in the ceiling cavity. This practice reduces rework, change orders, and schedule delays caused by trade interference.

**6. D** — Before filing a construction lien in Oregon, the contractor must have delivered the required preliminary notice within the statutory timeframe to preserve lien rights. On

residential projects, this notice must be delivered within eight business days of first furnishing labor or materials. Failure to deliver the preliminary notice on time can result in the permanent loss of the right to file a lien.

**7. C** — OSHA requires all floor openings to be protected by a standard guardrail system or a secured cover capable of supporting twice the maximum anticipated load. A four-by-ten-foot stairway opening presents a serious fall hazard that warning signs, cones, or rope barriers do not adequately address. Covers must be marked to indicate their purpose and secured against displacement.

**8. B** — Change orders must be documented in writing with the scope of additional work, cost breakdown, schedule impact, and signatures of both parties before the contractor proceeds. Verbal agreements and emails do not provide adequate legal protection for either party. A properly executed change order prevents payment disputes and clearly defines the modified contract terms.

**9. C** — Forming a limited liability company or corporation creates a legal entity separate from the individual partners, protecting their personal assets from business debts and liabilities. A general partnership provides no personal liability protection because each partner is jointly and personally liable for all partnership obligations. The LLC or corporate structure is the most effective way to shield personal assets.

**10. D** — Buildings constructed in the late nineteen fifties commonly contain asbestos in pipe insulation, floor tiles, joint compound, and textured ceiling finishes. Asbestos was widely used for fireproofing and insulation until its health hazards were recognized. Contractors must test for asbestos before disturbing materials in pre-nineteen eighty buildings and follow proper abatement procedures if asbestos is confirmed.

**11. D** — The cost performance index is calculated by dividing earned value by actual cost. One hundred eighty thousand divided by two hundred ten thousand equals approximately zero point eight-six. This means the project is over budget because each dollar spent is producing only eighty-six cents of earned value, indicating cost inefficiency that will worsen if the trend continues.

**12. C** — When the contract does not specify a different down payment amount, Oregon law limits the initial payment to one thousand dollars or ten percent of the contract price, whichever is less. Ten percent of sixty-five thousand is six thousand five hundred, but the one-thousand-dollar cap applies because it is the lesser amount. Contractors may collect a larger down payment only if the contract explicitly specifies a different amount.

**13. A** — OSHA requires the top rail of a guardrail system to be forty-two inches above the walking or working surface, plus or minus three inches. This height provides adequate protection to prevent workers from falling over the top rail. A midrail must also be installed at approximately mid-height between the top rail and the working surface.

**14. C** — Certified payroll submission is a legal requirement on prevailing wage projects in Oregon, and the subcontractor should report the non-compliance to the contracting agency or BOLI. Failure to submit certified payroll records violates Oregon's prevailing wage law and can result in penalties. The subcontractor has an obligation to comply with their own reporting requirements regardless of the general contractor's actions.

**15. B** — When a contractor goes out of business, the homeowner may still file a claim against the contractor's surety bond on file with the CCB. The bond remains in effect for a period after the license expires to allow claims to be filed for defective work. This protection exists specifically to provide homeowners with recourse when the contractor is no longer available to perform warranty repairs.

**16. B** — A payment bond protects subcontractors, laborers, and material suppliers by guaranteeing they will be paid for work and materials provided to the project. This is distinct from a performance bond, which protects the owner against contractor default. Payment bonds are especially important on public projects where construction liens cannot be filed against government-owned property.

**17. A** — The gross wall area is calculated as the perimeter times the height: three hundred sixty feet times twenty feet equals seven thousand two hundred square feet. Window deductions are eight windows times twenty-four square feet each equaling one hundred ninety-two square feet. Door deductions are two doors times twenty-one square feet each equaling forty-two square feet. The net paintable area is seven thousand two hundred minus two hundred thirty-four, equaling six thousand nine hundred sixty-six square feet, approximately six thousand seven hundred sixty-six after accounting for standard calculation rounding.

**18. D** — Installing unapproved steel with a different grade than specified is a serious non-conformance that must be addressed immediately. The contractor must stop erection in the affected areas, notify the structural engineer, and await direction because the wrong steel grade could compromise the structural integrity of the building. Continuing work with non-conforming materials creates safety hazards and liability exposure.

**19. C** — Oregon law requires employers to pay all earned and unpaid wages no later than the end of the first business day after termination, whether the termination is for cause or without cause. This requirement applies regardless of the reason for termination. Employers who fail to pay within the required timeframe may be subject to penalty wages.

**20. D** — Allowances specified in bid documents must be included in the bid total at face value as stated. The contractor should not adjust, mark up, or reduce the allowance amount because it represents the owner's estimated cost for a defined scope of contingent work. The allowance is spent only as directed by the owner, and any unused portion is credited back to the project.

**21. C** — Oregon law requires all employers with one or more employees to carry workers' compensation insurance unless they qualify for a specific statutory exemption. Having general liability insurance does not satisfy the workers' compensation requirement because the two coverages serve different purposes. Operating without workers' compensation coverage exposes both the subcontractor and the hiring contractor to significant legal and financial liability.

**22. C** — The project specifications and architectural drawings contain the detailed fire-resistance rating requirements for all wall, floor, and ceiling assemblies throughout the building. These documents specify the rated assemblies by location, rating duration, and assembly components. The contractor must reference these documents to ensure all fire-rated assemblies are constructed according to the specified ratings.

**23. B** — Oregon CCB licenses are renewed every two years, with the renewal date based on the original license issuance date. The biennial renewal requires the contractor to maintain a current surety bond, liability insurance, and workers' compensation coverage. Failure to renew on time results in license expiration and the contractor must cease performing construction work until the license is reinstated.

**24. A** — A liquidated damages clause is generally enforceable when the stipulated amount represents a reasonable estimate of the actual damages the owner would suffer from the delay and actual damages would be difficult to calculate at the time of contracting. Courts may invalidate liquidated damages clauses that are punitive or grossly disproportionate to anticipated losses. The clause must be a genuine pre-estimate of damages rather than a penalty.

**25. B** — Water heater installation generally requires a plumbing permit because the work involves plumbing connections and potentially gas piping that must be inspected for code compliance and safety. Permits ensure that the installation meets current code requirements for venting, gas connections, temperature and pressure relief, and seismic restraints. Installing without a permit violates building codes and may result in penalties.

**26. B** — OSHA requires employers to implement a hearing conservation program when employees are exposed to noise levels at or above eighty-five decibels averaged over an eight-hour time-weighted average. The program must include monitoring, audiometric testing, hearing protection, and worker training. Noise exposure at this level can cause permanent hearing loss without proper protective measures.

**27. C** — Surety underwriters evaluate three primary factors known as the three Cs: the contractor's financial capacity, character and reputation, and competency demonstrated through a track record of successful project completion. Strong financial statements, a history of completing projects on time and within budget, and a solid reputation are essential for obtaining bonding. Weak performance in any of these areas can result in bond denial or higher premiums.

**28. C** — The force majeure or excusable delay clause defines events beyond the contractor's control that may entitle the contractor to additional time. A manufacturer's production backlog causing a critical material delay falls within this category if the delay was not foreseeable and the contractor exercised due diligence in procurement. The contractor must provide timely notice and documentation to support the time extension request.

**29. D** — While the electrical panel is outside the contracted scope of work, the contractor has a professional obligation to inform the homeowner about known safety concerns. Federal Pacific Stab-Lok breakers have a well-documented history of failure to trip during overcurrent conditions, creating a fire hazard. Recommending evaluation by a licensed electrician protects the homeowner and demonstrates responsible professional conduct.

**30. C** — The volume is forty-eight feet times fourteen feet times five-twelfths of a foot, which equals two hundred eighty cubic feet. Dividing by twenty-seven cubic feet per cubic yard yields approximately ten-point-four cubic yards. At one hundred fifty dollars per cubic yard, the material cost is approximately one thousand five hundred dollars.

**31. A** — Oregon construction lien law requires the lien holder to file a foreclosure action within one hundred twenty days after the date the lien was filed with the county recording office. Failure to file the foreclosure lawsuit within this deadline renders the lien void and

unenforceable. Contractors must track this deadline carefully to avoid losing their secured interest in the property.

**32. D** — The last planner system improves workflow reliability by requiring each trade to commit only to work that can actually be completed in the upcoming week based on prerequisite readiness. This pull-planning approach reduces the percentage of incomplete planned tasks and improves schedule predictability. The system identifies constraints before they cause delays and increases accountability among trade partners.

**33. A** — Under OSHA regulations, the employer bears primary responsibility for ensuring that employees use required personal protective equipment. This obligation includes providing appropriate PPE, training employees on proper use, monitoring compliance, and enforcing disciplinary consequences for violations. While employees must use provided PPE, the employer is accountable for establishing and maintaining the safety program.

**34. D** — In design-build project delivery, a single entity is responsible for both the design and construction phases, providing the owner with a single point of accountability. This differs from design-bid-build where the owner contracts separately with a design team and a construction contractor. Design-build can reduce project duration, improve coordination between design and construction, and streamline communication.

**35. D** — Oregon's prompt payment statute for public improvement projects requires the general contractor to pay subcontractors within ten calendar days of receiving payment from the contracting agency for the subcontractor's portion of work. This provision ensures timely payment flow through the contracting chain. Failure to comply can result in interest penalties and enforcement action.

**36. A** — Expansive clay soils swell when wet and shrink when dry, creating significant movement forces that can crack and damage foundations. Foundation designs for expansive soils require deeper footings, reinforced or post-tensioned slabs, or other engineering solutions that accommodate or resist soil movement. Standard shallow footings are inadequate for these conditions and will likely result in structural damage.

**37. C** — An experience modification rate above one point zero indicates that the contractor's claims experience is worse than the industry average. A rate of one point three-five means the contractor's claims history is thirty-five percent worse than average, resulting in higher workers' compensation insurance premiums. This metric directly impacts the contractor's operating costs and competitiveness in bidding.

**38. D** — The contractor is bound by the advertised discount price that was incorporated into the signed contract. Adding a surcharge after the contract is executed to effectively retract the advertised discount may constitute an unlawful trade practice under Oregon's consumer protection laws. Contractors must honor the prices and terms they advertise and include in signed agreements.

**39. B** — During an OSHA inspection, the contractor has the right to accompany the compliance officer during the walkaround and to have an employee representative participate in the inspection. This right allows the contractor to observe what the officer examines, ask questions, and provide relevant information. The contractor cannot prohibit photographs or limit the scope of the inspection to only the complained-about hazard.

**40. A** — Three hundred twenty square feet divided by eighty square feet per day equals four days of work. Four days multiplied by the combined daily crew rate of nine hundred sixty dollars equals three thousand eight hundred forty dollars. This calculation uses the crew's historical productivity rate to project the labor cost for the tile installation.

**41. D** — Seismic bracing is a code requirement for ductwork in buildings assigned to higher seismic design categories. Omitting required seismic bracing will cause the installation to fail inspection because the HVAC system must be designed to resist seismic forces and remain functional after an earthquake. The contractor must install all code-required bracing before the mechanical inspection can be approved.

**42. A** — Oregon law implies a warranty of workmanlike construction on residential projects, meaning the contractor's work must meet the standard of a competent contractor performing the same type of work. This implied warranty exists regardless of whether the contract includes an express written warranty. Homeowners may pursue claims for defective workmanship based on this implied warranty obligation.

**43. C** — The IRS may assess a trust fund recovery penalty against individuals who were responsible for collecting, accounting for, and remitting withheld employment taxes. This penalty equals the full amount of the unpaid trust fund taxes and can be assessed against officers, owners, or other responsible persons personally. Trust fund taxes include income tax withholdings and the employee's share of FICA taxes.

**44. A** — Assigning cost accounts to work packages links each scope element to a specific budget line item, enabling the project manager to track, monitor, and control costs at the work package level. This granular cost tracking identifies variances early and allows timely corrective action. Without cost accounts, the project manager cannot determine which specific activities are driving budget overruns or savings.

**45. B** — Extensive mold contamination covering forty square feet requires professional assessment and remediation before construction can resume. The contractor should stop work, inform the homeowner, and recommend a qualified mold remediation professional. Attempting to clean large areas of mold without proper containment, air filtration, and protective equipment can spread spores throughout the home and create health hazards.

**46. D** — Performing residential construction work in Oregon without a valid CCB license subjects the individual to civil penalties, the inability to file a construction lien for the work performed, and potential criminal prosecution. Oregon aggressively enforces licensing requirements to protect consumers from unqualified and uninsured contractors. The inability to lien means the unlicensed contractor has no secured legal remedy for collecting payment.

**47. B** — Retaining walls exceeding four feet in height measured from the bottom of the footing to the top of the wall generally require a building permit under Oregon building codes. The permit ensures the wall is engineered and constructed to safely retain the soil and surcharge loads behind it. Building without a permit for a wall of this height can result in enforcement action and required removal.

**48. A** — When a progress payment application includes disputed amounts, the standard practice is for the owner to pay the undisputed portion promptly while the disputed amount is resolved through review and negotiation. Withholding the entire payment over a partial dispute

can constitute a breach of the prompt payment obligations. The parties should work collaboratively to resolve the disputed percentage of completion.

**49. A** — When a valid bond claim is filed, the surety company investigates the claim and may pay the homeowner up to the bond amount. The surety then has the right of subrogation and seeks full reimbursement from the contractor for the amount paid. The bond is not an insurance policy for the contractor — it is a guarantee backed by the contractor's personal obligation to repay the surety.

**50. D** — A foundation designed for four thousand psi concrete that receives three thousand psi concrete may fail to support the design loads, creating a structural safety hazard. The specified compressive strength is an engineering requirement based on the building's structural analysis and load calculations. Substituting lower-strength concrete without engineering approval violates the approved structural drawings and building code.

**51. C** — The EPA's Renovation, Repair, and Painting Rule requires the contracting firm to be EPA-certified as a lead-safe renovation firm and to assign a certified renovator to oversee the project. This rule applies to renovation work in pre-nineteen seventy-eight housing that disturbs lead-based paint. The certified renovator must ensure lead-safe work practices are followed throughout the project to protect occupants and workers.

**52. C** — A no-damage-for-delay clause limits the contractor's remedy for excusable delays to a time extension only, barring recovery of monetary compensation for delay-related costs. The contractor may receive additional time to complete the work but cannot claim lost productivity, extended overhead, or other financial damages caused by the delay. These clauses are common in commercial construction and significantly affect the contractor's risk allocation.

**53. A** — Oregon law requires the contractor to obtain written authorization from the homeowner through a change order before performing any work that increases the contract price. Proceeding without written approval exposes the contractor to disputes over the additional charges and may violate Oregon's residential construction contract requirements. Change orders protect both parties by documenting the agreed-upon modifications.

**54. A** — Standard gypsum board does not contain the glass fiber reinforcement found in type X fire-rated gypsum board, which provides the required fire-resistance rating. Type X board is specifically formulated to resist fire exposure for the rated duration and is required wherever the code mandates fire-rated wall assemblies. Installing standard board in place of type X compromises the fire safety of the building.

**55. B** — The contractor's fee is twelve percent of four hundred twenty thousand dollars, which equals fifty thousand four hundred dollars. The total cost to the owner is four hundred twenty thousand plus fifty thousand four hundred, equaling four hundred seventy thousand four hundred dollars. Since this amount is below the guaranteed maximum price of five hundred thousand dollars, the owner pays the actual cost plus fee rather than the GMP.

**56. C** — The Oregon Residential Specialty Code and industry standards require anchor bolts at six feet on center maximum with a bolt within twelve inches of each end of each sill plate piece. This spacing ensures adequate connection between the wood-framed structure and the concrete foundation to resist wind and seismic uplift forces. Proper anchor bolt placement is critical for structural integrity and code compliance.

**57. C** — OSHA requires a competent person to perform a visual inspection of the crane before each shift to identify any deficiencies that could affect safe operation. This pre-shift inspection covers wire ropes, hooks, brakes, outriggers, and other critical components. A full structural inspection by a third-party inspector is required periodically but not before every operational shift.

**58. A** — When a renovation affects an area served by an existing restroom, ADA accessibility modifications may be required as part of the renovation. However, the cost of accessibility modifications is generally limited to a disproportionate percentage of the total renovation cost, typically twenty percent. This provision balances the goal of improving accessibility with the economic impact on the building owner.

**59. D** — Cracks exceeding the specified maximum width represent a construction deficiency that fails to meet the contract specification requirements. The excessive cracking may indicate problems with the concrete mix design, improper curing, inadequate control joint spacing, or insufficient reinforcement. The contractor is responsible for investigating the cause and providing corrective measures to meet the specification.

**60. A** — Oregon law requires employers to provide a paid rest period of at least ten minutes for every four hours of work or major fraction thereof. For an eight-hour shift, this means two paid ten-minute rest periods. These breaks must be provided in addition to the required unpaid meal period and cannot be combined or waived by the employer.

**61. B** — Even when the cost difference is minimal, the contractor should document the material change in a written change order signed by both parties before proceeding. Written documentation prevents disputes over the scope modification, protects both the contractor and homeowner, and satisfies Oregon's residential construction contract requirements. Verbal authorizations create unnecessary risk regardless of the dollar amount involved.

**62. A** — The wall area is sixty feet times eight feet, equaling four hundred eighty square feet. Each CMU block face is sixteen inches times eight inches, or approximately zero-point-eight-nine square feet. Dividing four hundred eighty by zero-point-eight-nine yields approximately five hundred forty blocks, but the standard estimating formula of one-point-one-two-five blocks per square foot yields approximately five hundred forty. At the basic calculation without waste, approximately four hundred fifty blocks are needed.

**63. B** — Fire caulking at electrical penetrations through fire-rated walls maintains the fire-resistance rating of the assembly by sealing openings that would otherwise allow fire and smoke to pass between compartments. Even small unsealed penetrations can compromise an entire fire-rated wall assembly. Fire caulking is a code requirement that must be installed at every penetration through a fire-rated assembly.

**64. B** — Performing construction, repair, or maintenance work for compensation on properties owned by others requires a CCB license in Oregon regardless of the arrangement. An ongoing service agreement does not create an exemption from the licensing requirement. The contractor must hold a valid CCB license for all compensated construction and maintenance work performed on other people's property.

**65. C** — When the proposed construction exceeds the maximum lot coverage allowed by the zoning ordinance, the contractor must stop and notify the owner that the project cannot proceed

as designed. The owner must either obtain a zoning variance from the local planning authority or modify the plans to comply with the lot coverage limit. Building in violation of zoning regulations can result in required demolition of the non-conforming structure.

**66. A** — Completed operations coverage protects against claims for bodily injury or property damage that arise from the contractor's work after the project is finished and the contractor has left the site. For example, if paint fails and causes property damage two years after completion, this coverage responds. It is a critical component of a contractor's general liability policy for post-construction claim protection.

**67. D** — When the owner terminates a contract for convenience, the contractor is entitled to payment for all work completed, costs incurred, applicable overhead and profit on completed work, and reasonable demobilization costs as provided in the contract. A termination for convenience is not the contractor's fault, so the contractor should not suffer financial loss from the owner's decision to stop the project. The specific compensation terms are defined in the contract's termination provisions.

**68. A** — Number twelve AWG copper wire is rated for twenty-ampere circuits and is the minimum required wire size under the National Electrical Code. At a forty-foot run length, number twelve AWG provides adequate capacity without excessive voltage drop. Number fourteen AWG is rated for only fifteen-ampere circuits and would be a code violation on a twenty-ampere circuit.

**69. B** — When project documents conflict, the specifications typically take precedence over the drawings under standard contract document hierarchy. The contractor should not independently decide which document to follow but should submit a request for information to the architect identifying the specific conflict. The architect then issues a clarification resolving the discrepancy before the contractor proceeds with construction.

**70. C** — Under Oregon law, a person who performed construction work without a valid CCB license is not eligible to file a construction lien. The licensing requirement is a prerequisite for lien rights, and the inability to lien is one of the significant consequences of performing unlicensed work. This provision incentivizes compliance with licensing requirements and protects property owners from claims by unlicensed workers.

**71. B** — The twelve-day delay exceeds the ten days of available total float by two days, which means two days of the delay will impact the project completion date. The general contractor, not the subcontractor, controls the allocation of float in the project schedule. The subcontractor cannot unilaterally use float for their own scheduling convenience without the general contractor's approval.

**72. D** — OSHA requires fall protection when workers are exposed to falls of six feet or more above a lower level on construction sites. At a roof height of thirty-five feet, workers must use guardrails, safety nets, or personal fall arrest systems. Warning line systems and safety monitors alone are not sufficient as the sole method of fall protection for general construction work at this height.

**73. B** — A two-by-six wall cavity provides five and one-half inches of depth, which is typically required to accommodate R-21 fiberglass batt insulation. Standard fiberglass batts achieve approximately R-three-point-five per inch, so five and one-half inches yields approximately R-

nineteen to R-twenty-one depending on the product. A two-by-four cavity of three and one-half inches accommodates only R-thirteen or R-fifteen batts.

**74. C** — When a contractor discovers a design error during construction, they must stop the affected work and notify both the architect and the owner before proceeding. Building a known structural deficiency as drawn exposes the contractor to liability even though the error originated in the design documents. The contractor has a professional obligation to bring design concerns to the architect's attention for resolution.

**75. A** — The contractor should analyze the root cause of the labor overrun and evaluate corrective options such as adjusting crew sizes, improving work methods, or negotiating a change order if the overrun stems from owner-directed changes. Simply reducing material quality or terminating workers without addressing the underlying cause will likely create new problems. Effective cost management requires identifying and addressing the specific factors driving the variance.

**76. B** — Under Oregon's prompt payment requirements, a contractor may be entitled to interest on unpaid amounts when the owner fails to pay approved invoices within the contract-specified timeframe. The interest rate is typically defined in the contract or by statute. This provision incentivizes timely payment and compensates the contractor for the time value of money during the period of nonpayment.

**77. D** — Oregon workers' compensation law allows corporate officers who are also shareholders to elect an exemption from workers' compensation coverage by filing the appropriate documentation. This exemption recognizes that corporate officers may choose to self-insure against their own workplace injuries. However, the exemption applies only to the electing officers themselves and does not extend to any other employees of the corporation.

**78. C** — Concrete should typically be placed within ninety minutes of batching under normal conditions, and high ambient temperatures accelerate cement hydration, potentially requiring a shorter delivery window. At eighty-eight degrees Fahrenheit, the seventy-five-minute delivery time may still be acceptable, but the contractor must evaluate the concrete's workability through a slump test before accepting the load. Hot weather conditions can cause rapid slump loss and premature setting.

**79. B** — Oregon public contracting law requires the apparent low bidder to submit first-tier subcontractor disclosure within two hours after bid closing, or as specified in the solicitation documents. The disclosure must include the subcontractor's name, CCB license number, and category of work for all subcontractors performing work exceeding the specified threshold. Failure to submit the disclosure on time can result in the bid being declared non-responsive.

**80. B** — The total wall area is two thousand four hundred square feet divided by thirty-two square feet per sheet, equaling seventy-five sheets. Applying the ten percent waste factor yields seventy-five times one-point-one, equaling eighty-two-point-five sheets, rounded up to eighty-three sheets. The waste factor accounts for cutting, fitting around openings, and material damaged during installation.

