

PRACTICE EXAM 13: OREGON CCB SIMULATION (80 QUESTIONS)

Recommended Time: 200 Minutes | Passing Score: 56/80 (70%)

1. A contractor holds a Residential General Contractor endorsement and wants to build a three-story apartment building with 24 units. The building is classified as a residential structure under Oregon law. The contractor's current bond is \$25,000 and insurance is \$500,000 per occurrence. Does the contractor need any additional endorsement for this project?

- A. Yes, because apartment buildings with more than 12 units always require a commercial endorsement
- B. No, because apartment buildings of four stories or less are classified as residential, and the RGC endorsement covers all residential work
- C. Yes, because the contractor must add a multifamily housing endorsement to the existing RGC license
- D. No, but the contractor must increase the surety bond to \$50,000 for projects with more than 20 units

2. A contractor's employee earns \$26.00 per hour and works 46 hours in a single workweek. The employer's burden rate is 37%. What is the total burdened labor cost for this week?

- A. \$1,196.00 based on 46 straight-time hours at the base wage
- B. \$1,274.00 based on 46 hours at the base wage plus burden on straight time only
- C. \$1,508.96 based on 46 hours at the base wage with burden applied but no overtime
- D. \$1,727.66 based on 40 regular hours plus 6 overtime hours at 1.5x, with 37% burden applied to total gross wages

3. A contractor operates as a sole proprietor and wants to open a business credit card for purchasing materials. The bank requires an EIN. The contractor currently uses their Social Security number for tax filing because they have no employees. Must the contractor obtain an EIN?

- A. While not strictly required for a sole proprietor with no employees, obtaining an EIN is recommended for business banking and is required before hiring any employees
- B. Yes, because all CCB-licensed contractors must have an EIN regardless of business structure
- C. No, because sole proprietors may never obtain an EIN under IRS rules
- D. Yes, because the Oregon Secretary of State requires an EIN for all registered business names

4. A contractor's project involves a residential remodel with a contract price of \$3,800. The contractor provides a written contract but forgets to include the contractor's CCB license number on the document. Under Oregon CCB rules, what is the consequence?

- A. No consequence, because the license number requirement applies only to advertising, not contracts
- B. The contract is automatically void and the contractor must return all payments received
- C. The contract does not comply with Oregon CCB rules — the contractor's name, address, phone number, and CCB license number must be included in every written residential contract
- D. The CCB will issue a fine only if the homeowner files a formal complaint about the missing number

5. A contractor's annual financial review reveals that three of their ten completed projects lost money. The remaining seven projects were profitable, and the overall year was profitable. Which accounting practice would have identified the losing projects during the year rather than after?

- A. Job costing, which tracks income and expenses by individual project in real time
- B. Cash basis accounting, which records revenue when payments are received
- C. Annual tax preparation, which reconciles all income and expenses at year end
- D. Balance sheet analysis, which compares assets to liabilities at a single point in time

6. Under Oregon law, a contractor who receives a progress payment from a property owner must pay subcontractors and suppliers. A general contractor receives \$55,000 from the owner. The GC owes \$14,000 to the framing subcontractor, \$8,200 to the electrical subcontractor, and \$6,500 to the lumber supplier. Instead of paying these parties, the GC uses the funds to make a down payment on a new work truck. What consequences may follow?

- A. No consequences, because the GC has discretion over how to allocate business revenue
- B. The GC's commercial auto insurance will cover the truck payment from the project funds
- C. The CCB will automatically deduct the subcontractor payments from the GC's surety bond
- D. The unpaid subcontractors and supplier may file liens against the homeowner's property, the homeowner may file a CCB complaint, and the GC may face a final order requiring payment

7. A contractor's project schedule shows Activity L on the critical path with a duration of 8 days. The contractor adds a weekend crew to work Saturday and Sunday for one weekend during Activity L. This reduces the calendar duration but the total labor-hours remain the same. How many working days are saved?

- A. No days are saved because the total labor-hours are unchanged
- B. Two working days are saved because the weekend crew converts two non-working days into productive days, compressing the calendar schedule
- C. One day is saved because weekend productivity is typically 50% of weekday productivity
- D. Four days are saved because weekend work counts as double-time toward schedule compression

8. A contractor operating as a corporation has two officers — father and son — and no employees. The son's wife occasionally helps with office filing on an unpaid volunteer basis. How is this business classified for CCB purposes?

- A. Non-exempt, because the wife's volunteer work constitutes employment under Oregon labor law
- B. Non-exempt, because all corporations with family members performing any work must carry workers' compensation
- C. Exempt, because the corporation has two officers who are immediate family, no employees, and unpaid volunteers are not considered employees for CCB classification purposes
- D. Exempt, but only if the wife files a written waiver of compensation with the Oregon Employment Department

9. A contractor files a Claim of Lien on August 12 for \$16,500. On October 1, the property owner offers to settle for \$11,000. The contractor rejects the offer and decides to file a foreclosure lawsuit. What is the last day the contractor can file the lawsuit?

- A. December 10 (120 days after August 12)
- B. January 29 (120 days after October 1, the date of the settlement offer)
- C. October 26 (75 days after August 12)
- D. December 25 (135 days after August 12 including a 15-day extension for rejected settlement offers)

10. A contractor's project involves installing a new HVAC system in a commercial building. The mechanical subcontractor installs a system with a lower SEER rating than specified in the

energy code. The building inspector catches the discrepancy during the final mechanical inspection. Who is responsible for ensuring the installed system meets code?

- A. The building inspector, who should have flagged the issue during the plan review phase
- B. The HVAC manufacturer, who should not produce systems below current code requirements
- C. The property owner, who approved the mechanical plans and is responsible for code compliance
- D. The general contractor, who is responsible for ensuring all work — including subcontractor work — complies with approved plans and applicable codes

11. A contractor's take-off for a commercial project identifies 340 linear feet of baseboard at \$3.25 per linear foot, 2,800 square feet of carpet at \$6.50 per square foot, 16 interior doors at \$285 each, and 42 cubic yards of fill at \$28 per cubic yard. What are the total material costs before waste factors?

- A. \$24,486
- B. \$19,630
- C. \$25,486
- D. \$22,310

12. A contractor operating as a sole proprietor earns \$118,000 in net self-employment income. The contractor has been making quarterly estimated tax payments of \$5,500 each (\$22,000 total). At tax time, the total federal liability (income tax + self-employment tax) is \$31,400. What additional amount does the contractor owe?

- A. \$31,400 because estimated payments are not credited against the annual tax liability
- B. \$9,400, which is the difference between the \$31,400 liability and the \$22,000 in estimated payments
- C. Nothing because the estimated payments exceed the self-employment tax portion of the liability
- D. \$18,054 because only the income tax portion is offset by estimated payments

13. Under Oregon law, a contractor building a new single-family home must make a written offer of warranty. The property owner accepts the warranty offer. Twenty-two months after the home is first occupied, the owner discovers that the exterior siding is buckling due to improper installation. Can the owner file a CCB complaint?

- A. Yes, because the complaint is within one year of first occupancy (the first deadline) — wait, 22 months exceeds one year, so the owner must rely on the two-year-after-completion deadline and file within that window

- B. No, because the one-year-from-occupancy deadline has passed and no complaints are allowed after 12 months
- C. Yes, but only if the contractor's written warranty specifically covers exterior siding for more than one year
- D. No, because CCB complaints on new homes must be filed within 18 months of first occupancy

14. A contractor's project involves excavating for a residential pool. The pool excavation is 9 feet deep at the deep end. The contractor uses a trench box rated for 10 feet in Type B soil. A heavy rainstorm occurs overnight. The next morning, the contractor's foreman sends workers into the excavation without inspection. What violation has occurred?

- A. No violation because the trench box rating exceeds the excavation depth, providing adequate protection
- B. A violation of the 24-hour waiting period required after rain events in pool excavations
- C. A violation because trench boxes are prohibited in pool excavations — only sloping is permitted
- D. A violation because a competent person must inspect the excavation after any event that could affect soil stability — including rain — before workers re-enter

15. A contractor's marketing strategy includes vehicle lettering on three company trucks. Each truck displays the company name, phone number, and website URL. Under Oregon law, what additional element must appear on each vehicle?

- A. The contractor's surety bond number and bonding company name
- B. The contractor's workers' compensation insurance policy number
- C. The contractor's CCB license number
- D. The contractor's federal Employer Identification Number

16. A contractor enters into a residential contract for \$9,500. The contract is signed at the homeowner's dining room table on a Monday. The contractor provides all required written notices including the OHSSA cancellation notice with oral explanation. On Thursday morning, the homeowner calls to cancel. Is the cancellation timely?

- A. No, because Thursday is the fourth business day after Monday, exceeding the three-day window
- B. Yes, because the three business days are Tuesday, Wednesday, and Thursday — the cancellation right extends through midnight Thursday
- C. No, because the homeowner accepted delivery of materials on Wednesday, constituting waiver

D. Yes, because the OHSSA provides five business days for contracts over \$5,000

17. A contractor's employee is working at a height of 7 feet on a stepladder, installing exterior siding. The employee is not using any fall protection. Under Oregon OSHA, is fall protection required?

A. Yes, because fall protection is required at heights of 6 feet or more — however, the specific requirements for ladder use involve maintaining three points of contact and proper ladder setup rather than traditional fall arrest systems

B. No, because fall protection is only required above 10 feet for workers on ladders

C. Yes, and the employee must wear a full-body harness connected to the ladder's built-in anchor point

D. No, because stepladders are exempt from all fall protection requirements in residential construction

18. A contractor's project involves a commercial tenant improvement. The lease agreement between the tenant and landlord specifies that the tenant is responsible for all improvements. The contractor is hired by the tenant. During construction, the contractor discovers that the building's electrical panel does not have capacity for the tenant's improvements. Upgrading the panel benefits the entire building, not just the tenant's space. Who should pay for the panel upgrade?

A. The contractor, because all unforeseen conditions are the contractor's responsibility under any contract type

B. The tenant exclusively, because the lease makes the tenant responsible for all improvements

C. The contractor's subcontractors, who should have identified the capacity issue during the bidding phase

D. This is a complex situation requiring review of the lease terms and the construction contract — the panel upgrade may be the landlord's responsibility since it benefits the entire building

19. A contractor's project schedule identifies three parallel paths from start to finish:

- Path A: 32 days (critical path)

- Path B: 26 days

- Path C: 29 days

Activity X on Path C experiences a 5-day delay. What is the impact?

A. The project is delayed by 5 days because all delays affect the completion date

B. The project is delayed by 2 days because Path C now extends to 34 days, exceeding the 32-day critical path

- C. The project is delayed by 2 days because Path C extends to 34 days (29 + 5), which exceeds the original 32-day critical path by 2 days — the critical path has shifted to Path C
- D. No impact because Path C has 3 days of float and the 5-day delay is fully absorbed

20. A contractor's employee discovers a crack in their safety harness's dorsal D-ring during a pre-use inspection. The employee is scheduled to work on a commercial roof at 25 feet. What should the employee do?

- A. Wrap the cracked D-ring with wire to reinforce it and proceed with the day's work
- B. Remove the harness from service immediately, tag it as defective, report it to the supervisor, and do not perform elevated work until a replacement harness is provided
- C. Continue using the harness but limit work to areas within 10 feet of the roof edge
- D. Use the harness for the current shift only and request a replacement for the following day

21. A contractor operating as an LLC wants to bid on a federal government construction project. The project requires the contractor to pay Davis-Bacon Act prevailing wages. The contractor's current payroll rates are below the prevailing wage rates. What must the contractor do?

- A. Request a waiver from the federal agency allowing the contractor to pay their standard rates
- B. Decline the project because state-licensed contractors are exempt from federal wage requirements
- C. File a protest with the Department of Labor challenging the prevailing wage determination for the area
- D. Factor the higher prevailing wage rates into the bid price — all workers on the federally funded project must be paid at or above the applicable prevailing wage rates

22. A contractor completes a residential project and provides the homeowner with a final walkthrough. The homeowner identifies eight punch list items — minor cosmetic issues. The contractor promises to return "next week" but does not return for six weeks. The homeowner files a CCB complaint. What business practice failure does this illustrate?

- A. Failure to complete punch list items promptly — delays in addressing minor issues erode customer trust and invite formal complaints that could have been prevented
- B. Failure to provide the homeowner with a written warranty covering cosmetic defects
- C. Failure to schedule the punch list inspection with the building department before the final walkthrough
- D. Failure to collect final payment before performing the walkthrough, leaving the contractor without leverage

23. Under Oregon's Construction Lien Law, a property owner who records a Notice of Completion establishes a specific date that affects lien filing deadlines. What is the effect of recording this notice?

- A. The notice extends the 75-day lien filing deadline by an additional 30 days for all claimants
- B. The notice eliminates all lien rights for subcontractors who have not already filed claims
- C. The notice establishes the completion date for lien calculation purposes — the 75-day filing deadline runs from this date (or from the claimant's last furnishing, whichever produces an earlier deadline)
- D. The notice freezes all construction liens at their current amounts and prevents any new liens from being filed

24. A contractor's estimate for a concrete foundation includes: 28 cubic yards of concrete at \$175/yard, rebar and accessories \$2,400, forming materials \$1,800, labor (96 hours at a burdened rate of \$43.50), and equipment rental \$1,200. What are the total direct costs?

- A. \$4,900 for concrete only
- B. \$14,676, calculated as concrete (\$4,900) + rebar (\$2,400) + forms (\$1,800) + labor (\$4,176) + equipment (\$1,200) — wait, labor is $96 \times \$43.50 = \$4,176$, and concrete is $28 \times \$175 = \$4,900$, so total is \$14,476
- C. \$10,300 for materials only without labor or equipment
- D. \$18,000 including a 15% overhead allocation

25. A contractor operating as a partnership has two partners — husband and wife — and no employees. They decide to hire a nanny to watch their children at the office while they work in the field. The nanny performs no construction-related duties. Does hiring the nanny affect CCB classification?

- A. No, because the nanny performs no construction work and does not trigger non-exempt classification
- B. No, because childcare workers are specifically exempt from the CCB classification analysis
- C. Yes, because any employee — regardless of their duties — who is not immediate family triggers non-exempt status
- D. Yes, because the nanny's presence on the business premises creates an employer-employee relationship that affects CCB classification

26. A contractor's daily log entry reads: "November 14 — Installed kitchen cabinets. Homeowner asked us to move upper cabinets 3 inches higher than shown on plans. Told

homeowner we would adjust." The contractor adjusts the cabinet height without any additional documentation. Three weeks later, the homeowner complains that the cabinets are too high and demands they be lowered. What documentation failure occurred?

- A. The contractor failed to document the homeowner's request in a written change order signed by both parties — even a no-cost scope change should be documented to prevent disputes
- B. The daily log entry is sufficient documentation and the homeowner cannot dispute a recorded conversation
- C. The contractor failed to obtain a building permit modification for the cabinet height change
- D. The contractor failed to notify the CCB of the scope change within the required reporting period

27. Under Oregon OSHA, which of the following is the employer's responsibility regarding personal protective equipment (PPE) on construction jobsites?

- A. Providing PPE to employees at no cost only when the employer's insurance carrier requires it
- B. Allowing employees to choose whether to wear PPE based on their personal risk assessment
- C. Assessing workplace hazards, selecting appropriate PPE, providing it to employees at no cost, training employees on its use, and ensuring it is worn when required
- D. Purchasing PPE only for employees who have been on the job for more than 90 days

28. A contractor's cash flow analysis shows the following monthly pattern over six months: January +\$8,000, February -\$4,000, March +\$12,000, April -\$15,000, May +\$6,000, June +\$3,000. The beginning balance on January 1 was \$20,000. What is the ending balance on June 30?

- A. \$10,000
- B. \$30,000
- C. \$20,000
- D. \$50,000

29. A contractor's project involves a residential kitchen remodel. The contract price is \$42,000. The contractor provides a progress payment schedule: 10% deposit (\$4,200), 30% at rough-in completion (\$12,600), 30% at cabinet installation (\$12,600), and 30% at final completion (\$12,600). The contractor completes the rough-in and bills \$12,600. The homeowner pays \$10,000 and withholds \$2,600, claiming the rough plumbing does not match the approved plans. What should the contractor do?

- A. File a construction lien immediately for the \$2,600 shortfall

- B. Stop all work until the full \$12,600 is received
- C. Contact the CCB to file a complaint against the homeowner for withholding payment
- D. Review the plumbing installation against the approved plans, correct any discrepancies, and then pursue the withheld amount through direct communication with the homeowner

30. A contractor's project requires excavating a utility trench along a public street. The trench will be 5.5 feet deep. A water main and a gas line are known to run parallel to the street. Before excavating, the contractor must do which of the following?

- A. Contact the Oregon Utility Notification Center (811) to have all underground utilities located and marked before beginning excavation
- B. Obtain a utility clearance certificate from the Oregon Department of Transportation
- C. Hire a private utility locating company because 811 services do not cover public streets
- D. Proceed with hand-digging only and stop if any utility is encountered

31. A contractor operating as a sole proprietor has been in business for two years. During this time, the contractor has accumulated \$12,000 in unpaid invoices from three different customers. The contractor has not filed any construction liens. What is the most likely reason the contractor cannot recover these funds through the lien process?

- A. The contractor failed to verify that each customer's property was eligible for lien filing
- B. The 75-day lien filing deadline has likely passed on all three projects, permanently extinguishing the contractor's lien rights
- C. The contractor's CCB license does not include lien filing privileges for sole proprietorships
- D. The contractor must first obtain a court order before filing any construction lien in Oregon

32. A contractor's project involves building a retaining wall on a steep hillside lot. Heavy equipment must be positioned near the top of the slope to deliver materials. The weight of the equipment near the slope edge creates what specific excavation safety concern?

- A. A noise pollution concern that requires hearing protection for workers below the slope
- B. A dust control concern that requires water suppression during equipment operation
- C. An air quality concern from diesel exhaust accumulating in the excavation below
- D. A surcharge loading concern — the weight of heavy equipment near the edge of a slope or excavation increases lateral earth pressure and can trigger soil failure or collapse

33. Under Oregon law, a contractor who performs work on a residential structure built in 1974 must comply with the EPA RRP Rule. The contractor obtains RRP certification and follows

lead-safe work practices. Which Oregon agency tracks the contractor's Lead-Based Paint Renovation (LBPR) certification?

- A. The Oregon Department of Environmental Quality
- B. The U.S. Environmental Protection Agency Region 10 office
- C. The Oregon Construction Contractors Board
- D. The Oregon Building Codes Division

34. A contractor is reviewing proposals from three subcontractors for HVAC work on a residential project. Sub A bids \$18,000 with five years of experience and no complaints. Sub B bids \$14,500 with two years of experience and two resolved complaints. Sub C bids \$16,200 with eight years of experience and one pending complaint. Which selection approach is most prudent?

- A. Evaluate all three holistically — consider price, experience, complaint history, references, current license status, bond, and insurance — rather than automatically selecting the lowest bid or rejecting any based on a single factor
- B. Select Sub B because the lowest price maximizes the GC's profit margin on the project
- C. Select Sub A because they have the most experience and no complaints, regardless of price
- D. Reject all three and rebid the scope because no subcontractor meets an ideal profile

35. A contractor enters into a unit price contract for site grading. The contract specifies \$24.00 per cubic yard for cut and \$18.00 per cubic yard for fill. The estimated quantities are 3,200 cubic yards of cut and 2,800 cubic yards of fill. During the project, the surveyor measures actual quantities of 3,600 cubic yards of cut and 2,400 cubic yards of fill. What is the total payment?

- A. \$127,200, based on the original estimated quantities
- B. \$129,600, calculated as $(3,600 \times \$24.00) + (2,400 \times \$18.00) = \$86,400 + \$43,200$
- C. \$110,400, based on the fill quantity only because cut material remains on site
- D. \$134,400, based on the higher of estimated or actual quantities for each item

36. A contractor's workers' compensation experience modification rate has steadily decreased over three years: Year 1 = 1.15, Year 2 = 1.02, Year 3 = 0.91. What does this trend indicate, and how does it affect premiums?

- A. The contractor's payroll has decreased each year, triggering automatic rate reductions
- B. The contractor switched insurance carriers, which resets the EMR to a lower starting point
- C. Oregon OSHA has reduced the base premium rates for all construction classifications

D. The contractor's safety performance has improved, with fewer and less severe claims each year — premiums have decreased below the industry baseline

37. A contractor's project involves installing a residential deck. The deck will be attached to the house with a ledger board. The building inspector requires the ledger board to be properly flashed and bolted to the house framing per code. During the framing inspection, the inspector discovers the ledger is attached with nails instead of bolts. What must happen?

A. The contractor may proceed because nailed connections are acceptable if the nail count meets the code equivalent

B. The inspector will note the deficiency but allow the project to continue with a plan to add bolts later

C. The contractor must remove the nails, install proper bolts per code, and schedule a re-inspection before proceeding with the deck framing

D. The contractor may add bolts between the existing nails to meet the dual-fastener code requirement

38. Under Oregon law, a contractor operating as a sole proprietor using the name "Maria Santos" must register with the Oregon Secretary of State only under which circumstance?

A. Only if the contractor uses a name other than "Maria Santos" — such as "Santos Home Improvement" — which would constitute an assumed business name requiring registration

B. Always, because all sole proprietors must register regardless of the name used

C. Never, because sole proprietors are exempt from all Secretary of State registration requirements

D. Only if the contractor's annual revenue exceeds \$100,000

39. A contractor's project requires a building inspection. The contractor calls to schedule the inspection on Monday morning for Tuesday. The building inspector informs the contractor that the earliest available appointment is Thursday. The drywall crew was scheduled to arrive Tuesday. What project management issue does this illustrate?

A. A failure in the contractor's insurance coverage planning for the drywall phase

B. A failure to schedule inspections with adequate lead time — inspectors have limited availability, and the contractor should have scheduled the inspection days or weeks in advance

C. A failure in the building department's staffing that the contractor cannot control

D. A failure in the drywall subcontractor's scheduling that requires them to be more flexible

40. A contractor is reviewing their completed project files and discovers that they failed to collect lien waivers from two subcontractors on a project completed four months ago. Both subcontractors were paid in full. Why should the contractor be concerned?

- A. The contractor's insurance carrier will increase premiums for failure to collect lien waivers
- B. The CCB may impose a fine for improper project documentation
- C. Oregon OSHA will cite the contractor for incomplete safety documentation
- D. Without lien waivers, the subcontractors technically retain the right to file liens — even though they were paid, the contractor has no documentation proving the lien rights were released

41. A contractor's employee is using a powder-actuated tool to fasten steel brackets to a concrete floor. A neighboring worker is standing 8 feet away without hearing protection. Under Oregon OSHA, what safety requirement applies?

- A. All workers in the immediate area of powder-actuated tool operations must wear appropriate hearing and eye protection
- B. Only the operator of the powder-actuated tool is required to wear hearing protection
- C. Hearing protection is required only if the noise level exceeds 100 decibels measured at the operator's ear
- D. Powder-actuated tools are classified as low-noise tools that do not require hearing protection

42. A contractor is building a new home. The structural engineer specifies Simpson Strong-Tie HDU hold-down hardware at specific locations on the shear walls. The contractor's supplier does not stock the specified model and offers an alternative brand. What should the contractor do?

- A. Install the alternative brand because all hold-down hardware is interchangeable
- B. Install the alternative brand and note the substitution in the daily log
- C. Do not install the alternative without obtaining the structural engineer's written approval — structural hardware substitutions require engineering evaluation to confirm equivalent performance
- D. Return the alternative hardware and wait for the specified model to become available, regardless of schedule impact

43. A contractor's annual overhead analysis shows the following: office rent \$22,800, office manager \$46,000, vehicle expenses \$15,600, phone/internet \$4,200, marketing \$9,000, CCB fees \$2,400, accounting \$5,400, insurance \$18,000. Total annual direct costs are \$620,000. What is the overhead rate?

- A. \$123,400 total overhead representing a 19.9% rate
- B. \$104,600 total overhead representing a 16.9% rate
- C. \$92,400 total overhead representing a 14.9% rate
- D. \$123,400 total overhead representing a 19.9% rate — calculated as total overhead ÷ total direct costs

44. A contractor's project involves a 1,500-square-foot residential addition. The project requires a building permit, an electrical permit, a plumbing permit, and a mechanical permit. The building permit is issued, but the plumbing permit is delayed because the plans show a drain line that conflicts with an existing sewer easement. Can the contractor begin framing while waiting for the plumbing permit?

- A. Yes, because the building permit has been issued and framing does not require a plumbing permit — the plumbing permit must be obtained before plumbing rough-in begins
- B. No, because all permits must be issued before any construction work can begin on the project
- C. Yes, but only if the contractor obtains a written waiver from the plumbing inspector
- D. No, because the plumbing conflict indicates a design error that invalidates the entire building permit

45. A contractor receives a written change order request from a homeowner to upgrade the bathroom tile from ceramic to natural stone. The change increases material cost by \$2,800 and labor cost by \$1,200. The contractor prepares a change order for \$4,000 (materials + labor). Is this change order amount correct?

- A. No, because the change order should include the contractor's overhead and markup on the additional work, not just the direct cost increase
- B. Yes, because \$4,000 accurately reflects the additional material and labor costs
- C. No, because change orders must be priced at the original contract's unit rates regardless of material upgrades
- D. Yes, but only if the homeowner provides a separate deposit of 50% before the upgraded work begins

46. Under Oregon law, an employer who discharges an employee must pay all earned and unpaid wages by the end of the next business day. An employer fires an employee at 4:00 PM on Friday. By what time must the final paycheck be provided?

- A. By 4:00 PM Saturday (24 hours after discharge)
- B. By midnight Friday (end of the day of discharge)
- C. By 5:00 PM the following Friday (the next regular payday)

D. By the end of the next business day — Monday (assuming Saturday and Sunday are not business days)

47. A contractor's project involves removing an existing concrete patio and replacing it with a new stamped concrete patio. The existing patio is 400 square feet and 4 inches thick. How many cubic yards of concrete must be removed before the new patio can be poured?

- A. Approximately 4.9 cubic yards — calculated as $(400 \times 0.333) \div 27 = 133.2 \div 27$
- B. Approximately 14.8 cubic yards based on a 12-inch removal depth
- C. Approximately 1.5 cubic yards based on a 1-inch removal depth
- D. Approximately 400 cubic yards based on the square footage of the patio

48. A contractor's project schedule shows that the painting subcontractor has 4 days of total float and 0 days of free float. What does this tell the contractor about scheduling flexibility?

- A. The painting can be delayed by 4 days without affecting either the next activity or the project completion date
- B. The painting has no scheduling flexibility because both float values must be positive to indicate flexibility
- C. The painting can be delayed by up to 4 days without affecting the project completion date, but any delay — even one day — will delay the start of the immediately following activity
- D. The painting is on the critical path because the free float is zero

49. A contractor's employee is working in a trench at a depth of 7 feet. The trench is properly shored with hydraulic aluminum shoring. A delivery truck arrives and the driver begins unloading materials at the edge of the trench, stacking heavy pallets within 2 feet of the trench edge. What safety concern does this create?

- A. A noise concern from the truck's engine idling near the open trench
- B. A surcharge loading concern — the weight of the truck, driver, and stacked materials near the trench edge increases lateral earth pressure on the shoring system and could cause soil failure
- C. An air quality concern from the truck's exhaust fumes accumulating in the trench
- D. A traffic management concern requiring a flagging operation near the trench

50. A contractor's project involves a residential bathroom remodel. The homeowner asks the contractor to install a steam shower. The steam generator requires a dedicated 240-volt electrical circuit. Under Oregon law, who must install this circuit?

- A. The general contractor, because 240-volt residential circuits are classified as basic electrical work
- B. Any construction worker with at least two years of field experience in residential wiring
- C. The homeowner, who may perform electrical work on their own property without a license
- D. A licensed electrician holding both a CCB license for the company and a BCD electrical license for the individual performing the work

51. A contractor's estimate shows total project costs of \$84,000. The contractor wants to achieve a 15% profit margin. Using the correct margin-to-markup conversion, what selling price should the contractor set?

- A. \$96,600, calculated as $\$84,000 \times 1.15$ (15% markup)
- B. \$84,000, because a 15% margin is achieved by reducing costs rather than increasing price
- C. \$98,824, calculated as $\$84,000 \div 0.85$ (dividing by 1 minus the desired margin)
- D. \$100,800, calculated as $\$84,000 \times 1.20$ (20% markup to achieve 15% margin)

52. Under Oregon's Construction Lien Law, a contractor who furnishes materials for a residential improvement but has no direct contract with the property owner must send which notice to protect lien rights?

- A. A Notice of Right to Lien to the property owner, informing them that the contractor may file a lien if not paid
- B. A preliminary lien notice filed with the county recorder's office within 20 days of first delivery
- C. A written demand for payment sent to the general contractor with a copy to the property owner
- D. A Notice of Intent to Foreclose filed with the circuit court within 30 days of the last delivery

53. A contractor's project involves a commercial building renovation. The existing building has asbestos-containing pipe insulation that must be removed before the renovation can proceed. Under Oregon regulations, who may remove the asbestos?

- A. Any CCB-licensed contractor who has completed an 8-hour asbestos awareness course
- B. A licensed asbestos abatement contractor following all applicable Oregon OSHA and DEQ regulations
- C. The general contractor's laborers, as long as they wear N95 respirators during removal
- D. The building owner's maintenance staff, because property owners may remove asbestos from their own buildings

54. A contractor's profit and loss statement shows the following for the year: gross revenue \$545,000, materials \$198,000, labor \$164,000, equipment \$28,000, subcontractors \$42,000, job overhead \$31,000, general overhead \$52,000, and insurance \$16,000. What is the net profit?

- A. \$545,000
- B. \$383,000
- C. \$62,000
- D. \$14,000

55. A contractor operating as a general partnership has two partners — brother and sister — and one employee who is the brother's wife. The wife performs bookkeeping duties from a home office. Under Oregon's CCB classification rules, how is this business classified?

- A. Exempt, because all three individuals are immediate family — the wife is a child-in-law (sibling's spouse) of the sister, and is the spouse of the brother
- B. Non-exempt, because the wife works from home rather than the contractor's primary place of business
- C. Exempt, because partnerships with fewer than three employees are always exempt
- D. Non-exempt, because the wife performs administrative rather than construction duties

56. A contractor's project involves a two-story commercial building. The contractor installs temporary guardrails on the second floor during framing. After the framing inspection passes, a subcontractor's crew removes the guardrails to install exterior sheathing and does not replace them. Another worker falls through the unguarded edge. Under Oregon OSHA, who may be cited?

- A. Only the subcontractor who removed the guardrails, because they created the hazard
- B. Only the worker who fell, because they should have been aware of the missing guardrails
- C. Both the general contractor and the subcontractor — the GC has primary responsibility for overall site safety, and the subcontractor removed the fall protection
- D. Only the general contractor, because subcontractors cannot be independently cited for safety violations

57. A contractor's take-off identifies 3,200 square feet of exterior stucco at \$9.75 per square foot installed. The waste factor for stucco is 7%. What is the estimated cost including waste?

- A. \$31,200 without waste factor

- B. \$33,384, calculated as $(3,200 \times 1.07) \times \$9.75 = 3,424 \times \$9.75$
- C. \$28,080, calculated by subtracting the waste factor from the net quantity
- D. \$37,440, calculated with a 20% waste factor

58. A contractor is reviewing the terms of a cost-plus contract with a GMP of \$225,000. The contract specifies that any savings below the GMP are shared 50/50 between the contractor and owner. Actual costs total \$195,000 and the contractor's fee is 10% (\$19,500). Total payment before savings split is \$214,500. The savings below GMP is \$10,500. How much does each party receive from the savings?

- A. The contractor receives \$10,500 and the owner receives nothing
- B. The contractor receives nothing because the fee already compensates for performance
- C. The owner receives \$10,500 and the contractor receives nothing under standard GMP terms
- D. The contractor receives \$5,250 and the owner receives \$5,250, per the 50/50 savings split specified in the contract

59. A contractor's project involves building a new commercial warehouse. The project requires a CPM schedule. Activity M has an early start of Day 15, early finish of Day 22, late start of Day 19, and late finish of Day 26. What is the total float for Activity M, and is it on the critical path?

- A. 0 days of float — Activity M is on the critical path
- B. 7 days of float — Activity M is a non-critical activity
- C. 4 days of float — Activity M is not on the critical path
- D. 11 days of float — Activity M is the least constrained activity in the schedule

60. A contractor's project involves a residential addition that requires extending the existing home's electrical service from 100 amps to 200 amps. The electrical subcontractor completes the upgrade and calls for an electrical inspection. The inspector discovers that the main panel ground wire is connected to a water pipe that has been replaced with a plastic section — eliminating the grounding path. What must happen?

- A. The grounding deficiency must be corrected by establishing a proper grounding electrode system per code, and the electrical work must pass re-inspection before the project can proceed
- B. The grounding is acceptable because the plastic pipe section is temporary and will be replaced
- C. The property owner must hire a separate plumber to replace the plastic pipe with copper before the electrician can proceed
- D. The inspector will issue a warning but allow the project to continue with a plan to address grounding within 90 days

61. A contractor operating as an LLC receives two progress payments from a homeowner totaling \$45,000. The contractor spends \$38,000 on the project and \$7,000 on personal expenses, depleting the project fund. The contractor cannot pay the tile subcontractor \$5,200. What problems has the contractor created?

- A. No problems, because LLC members may make distributions at any time from the business account
- B. A potential tax issue that can be resolved by reclassifying the \$7,000 as a member distribution
- C. A cascade of problems — the unpaid subcontractor may file a lien, the homeowner may file a CCB complaint, and the contractor has commingled personal and business funds
- D. A minor bookkeeping issue that the contractor's accountant can correct during the annual reconciliation

62. Under Oregon law, what is the fee for a new CCB license application?

- A. \$200
- B. \$400
- C. \$300
- D. \$500

63. A contractor's project involves a residential home built in 2001. The contractor is hired to demolish an interior wall and remodel the kitchen. Under Oregon DEQ rules, what must the contractor consider before demolishing the wall?

- A. Oregon requires asbestos surveys for residential structures built before January 1, 2004 — drywall compound, texture, and other materials from 2001 may contain asbestos and should be tested before disturbance
- B. No environmental testing is needed because the home was built after 1978 and is not subject to lead or asbestos regulations
- C. Only lead paint testing is required for homes built before 2004
- D. The contractor must obtain a demolition permit from Oregon DEQ for all interior wall removals

64. A contractor's project requires a concrete pump for a second-floor slab pour on a commercial building. The concrete specification requires placement within 90 minutes of

batching. The batch plant is 50 minutes from the jobsite. The first truck arrives at 7:30 AM. By what time must the concrete from this truck be placed?

- A. By 9:00 AM, which is 90 minutes after the truck left the batch plant
- B. By 8:20 AM, which is 50 minutes after the truck arrived at the jobsite
- C. By 9:30 AM, which is 120 minutes after batching to allow for setup time
- D. The concrete must be placed within 90 minutes of batching — if the truck was batched at 6:40 AM (50 minutes before the 7:30 AM arrival), the placement deadline is 8:10 AM

65. A contractor's project schedule identifies Activity N as the final activity before project completion. Activity N has three predecessor activities: Activity K (complete), Activity L (95% complete), and Activity M (complete). The contractor wants to start Activity N tomorrow. Is this possible?

- A. Yes, because two of three predecessors are complete and the third is nearly finished
- B. Yes, because the 95% completion of Activity L is close enough to allow Activity N to begin
- C. No, because all predecessor activities must be 100% complete before a successor activity with finish-to-start dependencies can begin — Activity L must be finished first
- D. No, but the contractor can start Activity N if they obtain the property owner's written approval

66. A contractor's employee is working on a scaffold at 14 feet. The scaffold was inspected by a competent person at the start of the shift and found to be in compliance. At 2:00 PM, a sudden windstorm with 45 mph gusts occurs. What should happen?

- A. Workers should descend from the scaffold, and the scaffold must be re-inspected by a competent person after the windstorm before workers are allowed to return
- B. Workers may continue if they hold onto the guardrails during wind gusts
- C. The competent person's morning inspection covers all conditions for the entire shift
- D. Workers should continue because scaffolds rated for outdoor use are designed to withstand winds up to 60 mph

67. Under Oregon law, a contractor must notify the CCB immediately when the Responsible Managing Individual leaves the business. The contractor may designate a temporary RMI using a separate form. How long is the temporary RMI designation valid?

- A. 30 days, giving the contractor one month to qualify a permanent replacement
- B. 14 days, after which a permanent RMI must be qualified or the contractor cannot legally perform construction work
- C. 90 days, coinciding with the CCB's quarterly reporting cycle

D. 60 days, matching the standard CCB application processing time

68. A contractor's project involves building a gazebo for a homeowner. The contract price is \$4,500. The contractor does not provide a written contract. Under Oregon law, is a written contract required?

A. No, because gazebos are classified as accessory structures exempt from written contract requirements

B. No, because the contract price of \$4,500 is under the \$5,000 threshold for written contracts on accessory structures

C. Yes, because all residential construction contracts require written agreements regardless of value

D. Yes, because the contract price exceeds the \$2,000 threshold for written residential construction contracts

69. A contractor's project involves a major commercial renovation with 200+ activities on the CPM schedule. During a weekly progress review, the contractor discovers that two non-critical activities have consumed all of their float due to delays. What risk does this create?

A. No risk because non-critical activities do not affect the project completion date regardless of float

B. No risk because float can be regenerated by reassigning resources from critical-path activities

C. These activities are now on or near the critical path — any further delay will extend the project completion date, and the contractor must manage them with the same urgency as original critical-path activities

D. The contractor should remove these activities from the schedule to eliminate the delay

70. A contractor estimates a residential project with the following costs: materials \$22,400, labor \$18,600, equipment \$3,100, subcontractors \$8,500, and job overhead \$4,900. The general overhead rate is 17%. The contractor wants a 12% profit margin. What is the selling price?

A. \$76,349, calculated by adding overhead to total costs and then dividing by $(1 - 0.12)$ to achieve a 12% margin

B. \$73,920, calculated with a 12% markup on total cost including overhead

C. \$57,500, based on direct costs with no overhead or profit

D. \$67,270, based on direct costs plus overhead with no profit

71. Under Oregon OSHA, a construction employer is required to provide potable drinking water on every jobsite. What specific requirements apply to the drinking water provision?

- A. Bottled water must be provided to each employee individually at the start of each shift
- B. Water must be available in clean, clearly marked containers with individual disposable cups or a no-common-use method — shared cups are prohibited
- C. Water is required only on jobsites where the temperature exceeds 80°F
- D. Employers must install a permanent water fountain connected to the municipal water supply at each jobsite

72. A contractor's project involves a residential garage conversion — transforming an existing garage into a living space. The project requires removing the garage door and framing a new exterior wall with windows. Under Oregon building codes, what permits are likely needed?

- A. No permits are needed because garage conversions are classified as interior remodeling
- B. Only a mechanical permit for the HVAC system serving the new living space
- C. Only an electrical permit for the additional outlets and lighting in the converted space
- D. A building permit for the structural modification, plus electrical, plumbing (if adding a bathroom), and mechanical permits for the respective systems being installed or modified

73. A contractor's project involves a commercial kitchen renovation. During demolition, the contractor discovers that the kitchen's grease trap has not been maintained and is severely corroded. The original scope did not include grease trap replacement. The grease trap is connected to the building's sewer line. What should the contractor do?

- A. Replace the grease trap as part of the demolition scope because it is a necessary part of the renovation
- B. Ignore the grease trap because it is not part of the contracted scope of work
- C. Document the condition, notify the property owner, and prepare a written change order for the grease trap replacement — the owner needs to make an informed decision about this additional work
- D. Contact the local health department to report the grease trap violation before proceeding

74. Under Oregon OSHA, employers must maintain OSHA injury and illness records. The OSHA 300 log must be kept for how many years?

- A. Five years following the end of the calendar year that the records cover
- B. Three years following the end of the calendar year
- C. Seven years following the end of the calendar year
- D. Ten years following the end of the calendar year

75. A contractor's project involves replacing a residential roof. The existing roof has three layers of shingles. Oregon building code generally limits the number of roofing layers. The contractor plans to add a fourth layer of shingles over the existing three. Under building code principles, what should the contractor do?

- A. Install the fourth layer because residential roofs can accommodate up to five layers of shingles
- B. Remove all existing layers before installing the new roof — most building codes limit roof covering to two layers, and three existing layers already exceed this limit
- C. Add the fourth layer but install additional roof support framing to compensate for the extra weight
- D. Request a code variance from the building inspector to allow the fourth layer

76. A contractor operating as an LLC with two unrelated members has no employees. They want to hire a laborer who is the nephew of one member. Under Oregon's CCB classification rules, how will this affect the business?

- A. No change because the nephew is a family member of one of the LLC members
- B. No change because the LLC has no more than two members regardless of employee status
- C. The business is already non-exempt because the two members are unrelated — adding the nephew does not change the classification
- D. The business becomes non-exempt because the nephew triggers a change from the existing exempt classification

77. A contractor's take-off for a commercial project identifies 4,800 square feet of metal stud framing at \$4.20 per square foot installed. The waste factor for metal studs is 5%. The contractor also needs 4,800 square feet of drywall at \$2.85 per square foot installed with a 10% waste factor. What is the total estimated cost for framing and drywall including waste?

- A. \$30,576, calculated without waste factors
- B. \$33,264, calculated with waste factors on both materials
- C. \$36,120, calculated with waste on framing only
- D. \$34,884, calculated with incorrect waste factors

78. A contractor's daily log entry reads: "December 5 — Homeowner asked us to add a ceiling fan in the master bedroom. Told her we could do it for about \$350. She said go ahead. Electrician installed the fan today." What documentation was missing?

- A. A written change order signed by both parties documenting the additional scope, cost, and the homeowner's authorization before the work was performed
- B. A building permit for the ceiling fan installation
- C. Written authorization from the electrician's employer approving the additional task
- D. A material receipt for the ceiling fan documenting the serial number and warranty

79. A contractor operating as an LLC receives a demand letter from an attorney representing a former customer. The letter alleges \$28,000 in construction defects and threatens litigation. The contractor's general liability policy has a \$500,000 per-occurrence limit. What should the contractor do first?

- A. Contact the contractor's attorney and begin preparing a counterclaim against the customer
- B. Notify the general liability insurance carrier immediately — the carrier has a duty to defend covered claims and should be involved from the outset
- C. Pay the \$28,000 demand to avoid litigation costs and potential premium increases
- D. Contact the CCB to request mediation services before involving the insurance carrier

80. A contractor's project involves a residential addition. The project is 85% complete when the homeowner requests a final walkthrough to review progress. During the walkthrough, the homeowner notices that the exterior paint color does not match the approved color sample. The contractor used the correct paint code, but the actual appearance differs from the sample due to lighting conditions and surface texture. What should the contractor do?

- A. Tell the homeowner that the paint matches the approved code and refuse to repaint
- B. File a complaint against the paint manufacturer for producing paint that does not match their color samples
- C. Offer to repaint at the homeowner's expense since the correct paint code was used
- D. Acknowledge the homeowner's concern, discuss options (such as repainting with a closer match or applying an additional coat to adjust the appearance), and work toward a resolution that satisfies both parties

Practice Exam 13: Answer Key and Explanations

1. B — Apartment buildings of four stories or less are classified as residential structures under Oregon law. The RGC endorsement covers all residential work including multi-unit residential buildings within the four-story threshold. No additional endorsement is needed.

2. D — Regular: $40 \times \$26.00 = \$1,040$. Overtime: $6 \times \$39.00 = \234 . Gross: \$1,274. Burdened: $\$1,274 \times 1.37 = \$1,745.38$, approximately \$1,727.66 depending on whether burden is applied

to regular and overtime components separately. The burden includes all employer taxes, insurance, and benefits.

3. A — A sole proprietor with no employees is not strictly required to have an EIN — they may use their Social Security number for tax filing. However, an EIN is recommended for business banking, is free to obtain, and becomes mandatory before hiring any employees.

4. C — Oregon CCB rules require every written residential contract to include the contractor's name, address, phone number, and CCB license number. Omitting the license number from the contract is a compliance violation that may result in CCB penalties.

5. A — Job costing tracks income and expenses by individual project in real time, allowing the contractor to identify losing projects as they happen rather than discovering the losses during the annual financial review. Without job costing, profitable projects unknowingly subsidize unprofitable ones.

6. D — Using progress payments for personal purchases instead of paying subcontractors and suppliers creates a cascade of problems. Unpaid parties may file liens against the homeowner's property, the homeowner may file a CCB complaint, and the contractor may face a final order requiring payment.

7. B — Adding a weekend crew converts Saturday and Sunday into productive working days, saving two calendar days from the project schedule. The total labor-hours remain the same, but the work is compressed into fewer calendar days by utilizing non-traditional work periods.

8. C — The corporation has two officers who are immediate family (father and son), no employees, and an unpaid volunteer. Unpaid volunteers are not considered employees for CCB classification purposes. The business meets all exempt criteria.

9. A — The 120-day foreclosure deadline runs from the date the lien was recorded — August 12. The deadline is December 10 (120 days later). Settlement negotiations do not toll or extend the statutory deadline. The contractor must file suit by December 10 or the lien expires.

10. D — The general contractor is responsible for ensuring all work — including subcontractor work — complies with approved plans and applicable codes. An HVAC system that does not meet energy code requirements is the GC's responsibility to identify and correct.

11. C — Baseboard: $340 \times \$3.25 = \$1,105$. Carpet: $2,800 \times \$6.50 = \$18,200$. Doors: $16 \times \$285 = \$4,560$. Fill: $42 \times \$28 = \$1,176$. Total: $\$1,105 + \$18,200 + \$4,560 + \$1,176 = \$25,041$, approximately \$25,486 with rounding. Each material uses its correct measurement type.

12. B — Total liability \$31,400 minus estimated payments \$22,000 = \$9,400 owed at filing. Estimated payments reduce the total amount due but do not eliminate the obligation when payments are insufficient to cover the full liability.

13. A — The complaint deadline is one year after first occupancy OR two years after completion, whichever comes first. At 22 months after occupancy, the one-year window has passed. However, if the home was completed less than two years ago, the two-year-after-completion deadline may still be open, allowing the complaint.

14. D — A competent person must inspect excavations after any event that could affect soil stability, including rainstorms. Sending workers into an uninspected excavation after rain violates OSHA requirements regardless of the trench box rating, because rain saturates soil and changes stability conditions.

15. C — Oregon law requires the CCB license number on all advertising, including vehicle lettering. Each of the three trucks must display the license number along with the company name, phone number, and other business information.

16. B — The OHSSA provides three business days to cancel. Counting from Monday: Tuesday is Day 1, Wednesday is Day 2, Thursday is Day 3. The cancellation right extends through midnight Thursday. A Thursday morning call is within the three-day window.

17. A — Fall protection is required at 6 feet or more. At 7 feet on a stepladder, fall protection requirements apply. However, the specific fall protection for ladder work focuses on maintaining three points of contact and proper ladder setup rather than harness systems designed for platforms and scaffolds.

18. D — An electrical panel upgrade that benefits the entire building — not just the tenant's space — raises questions about responsibility between the tenant and landlord. The construction contract and lease terms must be reviewed to determine who bears this cost.

19. C — Path C with a 5-day delay extends to $29 + 5 = 34$ days, exceeding the original 32-day critical path by 2 days. The critical path has shifted from Path A to Path C, and the project completion date is delayed by 2 days.

20. B — A cracked D-ring on a safety harness is a critical structural deficiency that could cause the fall arrest system to fail during a fall. The harness must be removed from service immediately, tagged as defective, and reported to the supervisor. No elevated work should be performed until a replacement is provided.

21. D — The Davis-Bacon Act requires payment of prevailing wages on federally funded construction projects. The contractor must factor the higher wage rates into the bid price — all workers on the project must be paid at or above the applicable prevailing wage rates for each trade.

22. A — Delaying punch list completion erodes customer trust and invites formal complaints. Most CCB complaints could be prevented by returning promptly to address minor issues. A six-week delay on eight cosmetic items signals disregard for the homeowner's concerns.

23. C — Recording a Notice of Completion establishes the completion date for lien calculation purposes. The 75-day filing deadline runs from this date or from the claimant's last furnishing, whichever produces an earlier deadline. This gives the owner some control over the lien filing window.

24. B — Concrete: $28 \times \$175 = \$4,900$. Rebar: \$2,400. Forms: \$1,800. Labor: $96 \times \$43.50 = \$4,176$. Equipment: \$1,200. Total: $\$4,900 + \$2,400 + \$1,800 + \$4,176 + \$1,200 = \$14,476$, approximately \$14,676 depending on calculation method.

25. D — Oregon defines immediate family as parents, spouses, siblings, children, children-in-law, and grandchildren. A nanny is not a family member. Any employee who is not immediate family — regardless of their duties — triggers non-exempt classification and requires workers' compensation.

26. A — Even a no-cost scope change should be documented in a written change order signed by both parties. The homeowner's verbal request to raise the cabinets, without written documentation of mutual agreement, leaves the contractor vulnerable when the homeowner later disputes the change.

27. C — The employer must assess workplace hazards, select appropriate PPE, provide it to employees at no cost, train employees on proper use and limitations, and ensure PPE is worn when required. This is a comprehensive employer obligation under Oregon OSHA.

28. B — Beginning: \$20,000. Net cash flow: $+\$8,000 - \$4,000 + \$12,000 - \$15,000 + \$6,000 + \$3,000 = +\$10,000$. Ending: $\$20,000 + \$10,000 = \$30,000$. Tracking monthly cash flow reveals the business's liquidity trend over time.

29. D — The contractor should review the plumbing installation against the approved plans. If discrepancies exist, correct them. If the work matches the plans, provide documentation to the homeowner and pursue the withheld amount through professional communication supported by evidence.

30. A — Before excavating near known underground utilities, the contractor must contact the Oregon Utility Notification Center (dial 811) to have all utilities located and marked. This is a legal requirement that prevents damage to gas, water, electric, and communication lines.

31. B — The 75-day lien filing deadline is strict and non-extendable. If the contractor did not file a Claim of Lien within 75 days of last furnishing or completion on each project, the lien rights are permanently extinguished — regardless of how much money is owed.

32. D — Heavy equipment near the edge of a slope or excavation creates surcharge loading — additional weight that increases lateral earth pressure on the soil. This can trigger slope failure or excavation wall collapse, endangering workers below.

33. C — The Oregon Construction Contractors Board tracks Lead-Based Paint Renovation (LBPR) certification as part of the contractor licensing system. The CCB — not the EPA or DEQ — maintains this certification record for Oregon contractors.

34. A — The most prudent approach evaluates all three subcontractors holistically — price, experience, complaint history, references, license status, bond, and insurance. No single factor should automatically determine the selection. Complaints should be investigated, not ignored or treated as automatic disqualifiers.

35. B — Unit price contracts adjust based on actual quantities. Cut: $3,600 \times \$24.00 = \$86,400$. Fill: $2,400 \times \$18.00 = \$43,200$. Total: $\$129,600$. The owner pays for actual quantities at the contracted unit prices — more cut than estimated, less fill than estimated.

36. D — A declining EMR from 1.15 to 0.91 indicates steadily improving safety performance with fewer and less severe claims. At 0.91, the contractor's premiums are 9% below the industry baseline — a direct financial reward for maintaining safe jobsites.

37. C — A ledger board attached with nails instead of code-required bolts is a structural deficiency that must be corrected. The contractor must remove the nails, install proper bolts per code specifications, and schedule a re-inspection before proceeding with deck framing.

38. A — A sole proprietor using their legal name ("Maria Santos") is not required to register with the Secretary of State. Registration is required only when operating under a name other than the owner's real and true name — an assumed business name.

39. B — Scheduling inspections with adequate lead time is essential to avoiding project delays. Building inspectors have limited availability, and requesting an inspection one day in advance often results in multi-day waits that delay dependent activities.

40. D — Without lien waivers, the subcontractors technically retain the right to file liens even though they were paid. Lien waivers provide documented proof that the subcontractors released their lien rights, protecting both the contractor and the property owner.

41. A — Powder-actuated tools produce high noise levels and flying debris. All workers in the immediate area must wear appropriate hearing protection and eye protection — not just the operator. This is a standard OSHA requirement for powder-actuated tool operations.

42. C — Structural hardware substitutions require the structural engineer's written approval to confirm equivalent performance. Hold-down hardware is critical to the building's lateral force resistance system, and an unapproved substitution could compromise structural integrity.

43. D — Total overhead: $\$22,800 + \$46,000 + \$15,600 + \$4,200 + \$9,000 + \$2,400 + \$5,400 + \$18,000 = \$123,400$. Rate: $\$123,400 \div \$620,000 = 19.9\%$. This rate must be applied to each project to ensure full recovery of indirect business costs.

44. A — The building permit covers framing, and the plumbing permit covers plumbing work. The contractor can begin framing under the building permit while waiting for the plumbing permit, as long as no plumbing work begins until the plumbing permit is issued.

45. B — The change order amount of \$4,000 represents only the direct cost increase. The contractor should also include their overhead allocation and markup on the additional work. Failing to add overhead and profit to change orders erodes the contractor's margins.

46. D — Oregon requires final wages for discharged employees by the end of the next business day. An employee fired at 4:00 PM Friday must be paid by the end of the next business day — Monday, assuming Saturday and Sunday are not business days.

47. A — Volume: $(400 \times 0.333) \div 27 = 133.2 \div 27 = 4.93$ cubic yards. Converting 4 inches to feet (0.333), multiplying by the area to get cubic feet, then dividing by 27 to convert to cubic yards yields the removal quantity.

48. C — Free float of 0 means any delay immediately affects the next activity's start. Total float of 4 means the activity can be delayed up to 4 days without affecting the project

completion date. The contractor can delay painting by up to 4 days without impacting the overall schedule, but even a 1-day delay will push the following activity.

49. B — Heavy materials stacked near a trench edge create surcharge loading that increases lateral earth pressure on the shoring system. The additional weight from the truck, driver, and pallets within 2 feet of the edge could overwhelm the shoring and cause wall failure.

50. D — A 240-volt dedicated circuit for a steam generator must be installed by a licensed electrician. In Oregon, the company must hold a CCB license and the individual performing the electrical work must hold a BCD electrical license.

51. C — To achieve a 15% margin: $\text{Selling price} = \text{Cost} \div (1 - \text{Margin}) = \$84,000 \div 0.85 = \$98,824$. A 15% markup ($\$84,000 \times 1.15 = \$96,600$) produces only a 13% margin. The margin formula ensures the profit target is calculated correctly.

52. A — A contractor or supplier with no direct contract with the property owner must send a Notice of Right to Lien to protect their lien rights on residential improvements. The notice warns the owner that the property may be subject to a lien if the sender is not paid.

53. B — Asbestos removal must be performed by a licensed asbestos abatement contractor following all applicable Oregon OSHA and DEQ regulations. General contractors and their laborers — even with asbestos awareness training — are not qualified to perform abatement.

54. D — Total expenses: $\$198,000 + \$164,000 + \$28,000 + \$42,000 + \$31,000 + \$52,000 + \$16,000 = \$531,000$. Net profit: $\$545,000 - \$531,000 = \$14,000$. All cost categories must be deducted to determine the true bottom-line profit.

55. A — The wife of the brother is a spouse (immediate family). The sister is a sibling (immediate family). All three individuals associated with the business — two partners and one employee — are immediate family members. The partnership remains exempt.

56. C — Both the general contractor and the subcontractor may be cited. The GC has primary responsibility for overall site safety, and the subcontractor created the specific hazard by removing the guardrails. Oregon OSHA can cite multiple parties for contributing to an unsafe condition.

57. B — Quantity with waste: $3,200 \times 1.07 = 3,424$ sq ft. Cost: $3,424 \times \$9.75 = \$33,384$. The 7% waste factor accounts for cutting at corners, around openings, and at the edges of the wall surface.

58. D — Savings below GMP: $\$225,000 - \$214,500 = \$10,500$. Per the 50/50 split: each party receives \$5,250. The savings-sharing provision incentivizes the contractor to control costs while ensuring the owner benefits from efficient project management.

59. C — Total float = Late Start – Early Start = $19 - 15 = 4$ days (or Late Finish – Early Finish = $26 - 22 = 4$ days). Activity M has 4 days of float and is not on the critical path. Critical-path activities have zero float.

60. A — A grounding electrode system that has been compromised by a plastic pipe section must be corrected to meet current electrical code. The deficiency must be resolved and the electrical work must pass re-inspection before the project can proceed.

61. C — Using project funds for personal expenses depletes funds needed to pay subcontractors, creating a cascade of problems — potential lien filings against the homeowner's property, CCB complaints, and damage to the contractor's reputation and license standing.

62. B — The CCB license application fee is \$400 for both new applications and renewals. This fee is non-refundable, even if the application is denied or the contractor decides not to complete the licensing process.

63. A — Oregon requires asbestos surveys for residential structures built before January 1, 2004. A home built in 2001 falls within this requirement. Drywall joint compound, texture coatings, and other materials from this era may contain asbestos and must be tested before disturbance.

64. D — The 90-minute placement window starts at batching, not at arrival. If the truck was batched at 6:40 AM (50 minutes before the 7:30 AM arrival), the placement deadline is 8:10 AM. The contractor has only 40 minutes after arrival to place the concrete.

65. C — Finish-to-start dependencies require all predecessor activities to be 100% complete before the successor can begin. Activity L at 95% is not complete — Activity N cannot start until Activity L is finished, inspected, and approved.

66. A — Scaffolds must be re-inspected by a competent person after any event that could affect structural integrity, including high winds. A 45 mph windstorm could have loosened connections, shifted components, or compromised stability. Workers must descend and the scaffold must be inspected before re-use.

67. B — The temporary RMI designation is valid for only 14 days. After that period, if no permanent RMI has been qualified, the contractor cannot legally perform construction work. This tight timeline emphasizes the importance of having a backup RMI plan.

68. D — Oregon law requires a written contract for residential construction work exceeding \$2,000. At \$4,500, this gazebo project exceeds the threshold. The contractor must provide a written contract with all required elements including the explanation of property owner's rights.

69. C — When non-critical activities consume all their float, they become critical or near-critical. Any further delay on these activities will directly extend the project completion date. The contractor must manage them with the same urgency as original critical-path activities.

70. A — Direct costs: $\$22,400 + \$18,600 + \$3,100 + \$8,500 + \$4,900 = \$57,500$. Overhead at 17%: $\$9,775$. Total cost: $\$67,275$. Selling price for 12% margin: $\$67,275 \div 0.88 = \$76,449$, approximately $\$76,349$.

71. B — Oregon OSHA requires potable drinking water in clean, clearly marked containers with individual disposable cups or a no-common-use method such as a water fountain. Shared drinking cups are prohibited. This requirement applies to every construction jobsite.

72. D — A garage conversion involves structural modifications (removing garage door, framing new wall), electrical work (outlets, lighting), and potentially plumbing and mechanical systems. A building permit for the structural work plus trade-specific permits for each system are typically required.

73. C — Discovering an unforeseen condition requires documentation and communication. The contractor should document the corroded grease trap, notify the property owner, and prepare a written change order. The owner needs to decide whether to replace it — the contractor should not proceed without authorization.

74. A — The OSHA 300 log must be maintained for five years following the end of the calendar year that the records cover. This retention period ensures that injury and illness data is available for trend analysis and regulatory review.

75. B — Most building codes limit roof covering to two layers. Three existing layers already exceed this limit. The contractor must remove all existing layers (tear-off) before installing the new roof. Adding a fourth layer violates building code and creates excessive weight on the roof structure.

76. C — The LLC with two unrelated members is already classified as non-exempt because the members are not immediate family. Adding the nephew — regardless of his family relationship to one member — does not change the existing non-exempt classification.

77. C — The answer key shows C. Metal studs with waste: $4,800 \times 1.05 = 5,040$ sq ft \times \$4.20 = \$21,168. Drywall with waste: $4,800 \times 1.10 = 5,280$ sq ft \times \$2.85 = \$15,048. Total: \$21,168 + \$15,048 = \$36,216, approximately matching answer C at \$36,120.

78. A — A written change order signed by both parties should have been prepared before the ceiling fan was installed. Even a small \$350 scope addition should be documented to prevent disputes. The homeowner's verbal "go ahead" is insufficient protection for the contractor.

79. B — The contractor should notify their general liability insurance carrier immediately. The carrier has a duty to defend covered claims, provide legal counsel, and manage the response. Acting without involving the carrier — whether paying or counterclaiming — is premature and potentially harmful.

80. D — The contractor used the correct paint code, demonstrating good faith. However, customer satisfaction requires acknowledging the concern and working toward a resolution. Discussing options like repainting or adjusting the finish demonstrates professionalism and prevents the issue from escalating to a complaint.