

PRACTICE EXAM 25: ARKANSAS BUSINESS AND LAW SIMULATION (50 QUESTIONS)

Total Questions: 50 | **Time Limit:** 2 Hours | **Passing Score:** 70% (35/50)

This is the final practice exam in this study guide. It mirrors the official Arkansas Contractor Business and Law Examination in format, domain weighting, and difficulty. Answer all questions by selecting the single best answer.

DOMAIN: BUSINESS ORGANIZATION (1 Question)

1. A contractor considering different business structures asks their CPA to compare the liability and tax implications of a sole proprietorship, a general partnership, an LLC, and an SCorporation. The contractor's primary concerns are personal liability protection and minimizing selfemployment taxes. Which structure best addresses both concerns simultaneously?

A. A sole proprietorship with a large umbrella insurance policy to substitute for liability protection while keeping taxes simple

B. An LLC with SCorporation tax election — the LLC provides personal liability protection by separating business and personal assets, while the SCorporation election allows the owner to split income between salary (subject to FICA) and distributions (not subject to FICA), reducing selfemployment taxes compared to a sole proprietorship where all net income is subject to SE tax

C. A general partnership with a written agreement limiting each partner's liability to their capital contribution

D. A CCorporation because it provides both liability protection and the lowest overall tax rate for the business owner

DOMAIN: LICENSING (4 Questions)

2. A contractor holds a restricted commercial license and wins a bid for a \$740,000 commercial project. The restricted license caps individual projects at \$750,000. During the first month of construction, the owner approves a \$25,000 change order, bringing the total contract value to \$765,000 — \$15,000 above the restricted cap. The contractor immediately notifies the ACLB and applies for an unrestricted license upgrade. While the upgrade application is being processed, can the contractor continue working on the project?

A. Yes, because the contractor proactively notified the ACLB and the upgrade application is pending

B. Yes, because change orders within 10% of the project value are automatically exempt from the restricted cap

C. No, because the contractor must cease all work immediately until the unrestricted license is issued, regardless of the project timeline or the contractor's proactive notification

D. The contractor should immediately contact the ACLB for guidance — operating above the restricted cap is a licensing violation, but the contractor's prompt notification and upgrade application demonstrate good faith, and the Board may provide interim authorization or guidance on how to proceed while the upgrade is processed

3. A licensed contractor in Arkansas subcontracts the electrical work on a commercial project to an electrician who holds a valid Arkansas electrical license but does not carry workers' compensation insurance for their two employees. The general contractor does not verify the subcontractor's insurance before allowing them on the jobsite. A worker is injured during the electrical installation. What is the general contractor's exposure?

A. The general contractor may face liability for the injured worker's medical costs and disability benefits because the GC failed to verify the subcontractor's workers' compensation coverage — many jurisdictions hold the general contractor responsible for uninsured subcontractors' workers' compensation obligations, and the GC's own carrier may assess additional premium for the uninsured subcontractor's payroll

B. No exposure because the electrical subcontractor is an independent business responsible for their own insurance

C. Exposure limited to a \$500 fine from the ACLB for failing to verify insurance documentation

D. Exposure only if the injured worker files a complaint with the Workers' Compensation Commission naming the general contractor

4. The ACLB receives an anonymous complaint alleging that a licensed contractor has been performing work outside the geographic boundaries of Arkansas — specifically, completing a \$400,000 commercial project across the state line in Oklahoma without an Oklahoma contractor's license. Does the ACLB have jurisdiction to investigate this complaint?

A. Yes, because the ACLB regulates all activities of Arkansas licensed contractors regardless of where the work is performed

B. Yes, because performing unlicensed work in another state reflects on the contractor's ethical fitness to hold an Arkansas license

C. The ACLB may consider whether performing unlicensed work in another state constitutes conduct that reflects on the contractor's character and fitness for licensure in Arkansas — while the ACLB does not directly enforce Oklahoma law, the contractor's willingness to operate illegally in another jurisdiction may be relevant to the Board's assessment of the contractor's professional integrity

D. No, because the ACLB's jurisdiction is limited to construction work performed within Arkansas borders

5. A contractor's license is suspended by the ACLB for 90 days as a result of a disciplinary action for failing to maintain required insurance. During the suspension period, the contractor has three active projects in various stages of completion. What happens to these projects during the suspension?

A. The projects continue automatically under the license of the contractor's surety until the suspension ends

B. The contractor cannot perform any construction work during the suspension — the contractor must arrange for properly licensed contractors to continue the active projects or negotiate standstill agreements with the project owners, and performing any licensable work during the suspension period constitutes unlicensed activity that may result in additional disciplinary action

C. The projects are automatically transferred to the ACLB's receivership program for completion by Board-designated contractors

D. The contractor can complete the three active projects but cannot bid on or start any new projects during the suspension

DOMAIN: ESTIMATING AND BIDDING (4 Questions)

6. A contractor's estimator needs to calculate the total labor cost for framing a commercial building. The framing crew consists of 8 carpenters, each earning a loaded rate of \$46.00 per

hour. The estimated framing duration is 35 working days at 8 hours per day. What is the total estimated framing labor cost?

- A. \$12,880, calculated using only one carpenter's loaded rate over the 35day period
- B. \$36,800, calculated using the crew of 8 for only 10 days instead of the full 35day duration
- C. \$102,200, calculated using a 7hour day instead of the 8hour day specified in the estimate
- D. \$102,880, calculated as 8 carpenters \times \$46.00/hour \times 8 hours/day \times 35 days

7. A public project requires all bidders to submit a bid bond equal to 5% of the bid amount. A contractor's bid is \$3,600,000 and they submit a bid bond for \$180,000. After the bid opening, the contractor is the apparent low bidder. The owner awards the project but the contractor refuses to execute the contract because they received a more profitable project from another owner. What is the owner's remedy under the bid bond?

- A. The owner can claim the full \$180,000 bid bond as a flat penalty regardless of the actual cost difference
- B. The owner can sue the contractor for the full \$3,600,000 contract value plus consequential damages
- C. The owner can claim against the bid bond for the difference between the contractor's bid and the next lowest responsive bid, up to the \$180,000 penal sum of the bond — this compensates the owner for the additional cost of awarding to the next bidder
- D. The owner has no remedy because bid bonds are voluntary instruments that cannot be enforced

8. A contractor receives the following subcontractor quotes for the plumbing work on a commercial project: \$245,000, \$262,000, \$251,000, and \$248,000. All four subcontractors are reputable firms with good track records. The estimator selects the \$245,000 lowest quote for the bid. After winning the project, the contractor discovers that the \$245,000 subcontractor included a critical exclusion in their quote — they excluded the fire sprinkler connections that the specification requires the plumbing contractor to perform. The other three quotes included this scope. What is the contractor's situation?

- A. The contractor bears the cost of the excluded fire sprinkler connections because the estimator failed to verify that all quotes covered the same scope — this is an estimating oversight that the contractor must absorb, either by negotiating with the low bidder to add the scope, engaging one of the other three subcontractors, or selfperforming the excluded work

- B. The plumbing subcontractor is legally bound to include the fire sprinkler connections because competitive bidding requires all quotes to cover the same scope
- C. The project owner must pay for the fire sprinkler connections through a change order because the exclusion creates a scope gap
- D. The architect must revise the specifications to eliminate the fire sprinkler connection requirement since the lowest plumbing subcontractor excluded it

9. Same question. What is the estimated steel cost including contingency?

- A. \$1,768,000, representing only the structural steel without miscellaneous metals or contingency
- B. \$2,307,240, calculated as structural steel (\$1,768,000) plus miscellaneous metals (\$494,000) = \$2,262,000 subtotal, plus 2% contingency (\$45,240) = \$2,307,240
- C. \$2,262,000, calculated without the contingency applied to the combined steel package
- D. \$2,494,000, calculated by applying the contingency only to the miscellaneous metals at a higher rate

DOMAIN: CONTRACT MANAGEMENT (8 Questions)

10. A contractor on a fixed-price commercial project discovers a conflict between the architectural drawings and the structural drawings. The architectural drawings show a large window opening in a wall that the structural drawings designate as a shear wall requiring continuous solid construction. The contractor has not yet framed this section. Under standard contract provisions, what is the contractor's obligation?

- A. Frame the shear wall without the window because structural integrity always takes automatic precedence over architectural design
- B. Install the window as shown on the architectural drawings because the architect's design intent controls all decisions
- C. Frame both the shear wall and the window opening simultaneously and allow the building inspector to determine which takes precedence
- D. Stop work in the affected area and submit an RFI to the architect identifying the conflict between the window opening and the shear wall — the contractor must not proceed unilaterally because choosing one document over the other without design team resolution could result in either a structural deficiency or a deviation from the architectural design

11. A general contractor's subcontract includes a flowdown provision incorporating the prime contract's insurance requirements. The prime contract requires all parties to carry \$2,000,000 in CGL coverage. The painting subcontractor's CGL policy has a peroccurrence limit of only \$1,000,000. The general contractor discovers this deficiency during a routine insurance compliance audit at the midpoint of the project. What should the general contractor do?

A. Accept the \$1,000,000 coverage because painting is a lowrisk trade that does not require \$2,000,000 in coverage

B. Terminate the painting subcontractor immediately for breach of the subcontract without allowing an opportunity to cure

C. Notify the painting subcontractor of the insurance deficiency and require them to increase their CGL coverage to \$2,000,000 within a specified timeframe — the flowdown provision makes the prime contract's insurance requirements binding on the subcontractor, and the GC has a contractual obligation to the owner to ensure all subcontractors maintain the required coverage levels

D. Reduce the painting subcontractor's scope to limit the GC's exposure and engage a second painting contractor for the remaining work

12. A project owner issues a change order reducing the contract scope by deleting \$95,000 of interior millwork because the owner has decided to furnish the millwork separately after the contractor completes the base building. The contractor's bid for the millwork included \$76,000 in direct costs and \$19,000 in overhead and profit. The contract's change order provisions state: "Deductive change orders shall be calculated at direct cost savings." What deduction amount should the change order reflect?

A. \$76,000, representing the direct cost savings only — the contractor retains the \$19,000 in overhead and profit because the contract specifies deductive change orders at "direct cost savings," not at the full bid value including margin

B. \$95,000, representing the full bid amount including overhead and profit

C. \$57,000, representing 60% of the direct cost as a compromise deduction

D. \$76,000 minus a 10% scope deletion fee that compensates the contractor for the administrative burden of processing the deductive change order

13. A contractor on a hospital expansion project encounters a 4week delay because the city takes significantly longer than expected to issue a building permit. The contract includes a clause listing "governmental delays including permit processing" as an excusable delay event.

The contractor requests both a 4week time extension and \$48,000 in extended overhead costs. Under a typical excusable delay provision, what is the contractor entitled to?

- A. Both the time extension and the \$48,000 in overhead costs because governmental delays are always fully compensable
- B. A 4week time extension only — excusable delay clauses typically provide additional time but not additional money, because the financial risk of delays caused by events beyond either party's control generally remains with the contractor while the schedule risk is mitigated through the time extension
- C. The \$48,000 in overhead only, without a time extension, because the contractor should accelerate to recover the permit delay
- D. Neither a time extension nor compensation because permit delays are always foreseeable and should be included in the original schedule

14. A subcontractor on a commercial project completes their scope of work and submits a final payment application for \$120,000 — the balance of their subcontract including \$45,000 in retainage. The general contractor has received the corresponding payment and retainage from the owner. The GC approves the final application but does not pay, stating they are "holding funds as leverage" to ensure the subcontractor responds promptly to any warranty calls during the upcoming year. The subcontract does not include a provision for postcompletion warranty holdbacks. Is the GC's position defensible?

- A. Yes, because general contractors have an inherent right to hold subcontractor funds as warranty security
- B. Yes, because warranty responsiveness is a legitimate business concern that justifies retaining earned payments
- C. No, but the subcontractor must wait 12 months before pursuing legal remedies because warranty holdback disputes have a mandatory coolingoff period
- D. No, because the GC has no contractual basis for withholding earned payment as a warranty reserve — the subcontract does not authorize postcompletion holdbacks, retainage is held for completion security not warranty purposes, and the GC has already received the owner's payment, making the withholding a breach of the subcontract's payment provisions

15. A construction contract requires the contractor to provide a performance bond at 100% of the contract value. During construction, the contractor encounters severe financial difficulties. The surety receives early warning from the contractor about potential performance problems. The surety wants to intervene before the owner formally declares a default. What options does the surety have for early intervention?

- A. The surety can provide financial assistance to help the contractor complete the project — including operating capital advances, material financing, or accelerated payment processing — because early intervention typically costs the surety less than responding after a formal default, and the surety has a financial interest in helping the original contractor finish rather than hiring a more expensive replacement
- B. The surety has no authority to intervene until the owner formally declares the contractor in default
- C. The surety can only cancel the bond and remove itself from the project
- D. The surety can replace the contractor immediately without the owner's consent or the contractor's agreement

16. A contractor working on a commercial project receives a written directive from the owner to install a backup generator system not included in the original contract. The owner states the generator must be installed immediately for occupancy reasons and that a "formal change order will follow." The contractor estimates the work at \$125,000. What should the contractor do before proceeding?

- A. Install the generator immediately because the owner's written directive constitutes a binding change order
- B. Refuse to install the generator until a formal change order with an agreed price is executed
- C. Respond in writing acknowledging the owner's directive, submit a change order proposal for \$125,000 with schedule impact, and state that the contractor will proceed with the generator work under the owner's directive while tracking all costs on a timeandmaterials basis — preserving the contractor's right to the full actual cost if the \$125,000 estimate proves insufficient
- D. Install the generator and absorb any costs above the original contract amount as a goodwill gesture

17. A project architect issues a punch list containing 110 items after the substantial completion walkthrough. The contractor's superintendent reviews the list and identifies 12 items that describe work not included in the original contract scope — for example, "install card reader access control at the main entrance" when the contract documents show a standard keyed lock. How should the contractor handle these 12 items?

- A. Complete all 110 items without objection to avoid delaying final payment and closeout
- B. Complete the 98 undisputed items promptly while formally disputing the 12 outofscope items in writing — identify why each disputed item falls outside the contract documents, request either removal from the punch list or processing as a change order with additional compensation, and continue goodfaith closeout efforts on the legitimate items

- C. Refuse to complete any punch list items until the 12 disputed items are resolved
- D. File a mechanics' lien for the estimated cost of the 12 outofscope items as a preemptive financial protection measure

18. A contractor on a commercial project submits a change order claim for \$72,000 based on a differing site condition — the contractor encountered rock during foundation excavation where the geotechnical report indicated clay soil. The contractor provided written notice to the owner within 7 days of discovering the rock (within the contractual 21day notice period). The owner argues the claim should be denied because "rock is common in this area." Under the differing site conditions clause, whose position is stronger?

- A. The owner's position is stronger because experienced contractors in rocky areas should anticipate subsurface rock regardless of what the geotechnical report indicates
- B. The contractor's position depends entirely on whether the rock layer was visible during the prebid site visit
- C. Neither party has a strong position because subsurface conditions are always a shared risk that should be split equally
- D. The contractor's position is stronger because the geotechnical report — a contract document — specifically indicated clay soil, and the actual condition (rock) differs materially from what was represented, making this a classic Type I differing site condition regardless of the general geology of the area

19. A contractor completes a commercial building. The architect issues the certificate of substantial completion on May 1. The contract states the warranty period is "one year from substantial completion." On April 20 of the following year — eleven days before the warranty expires — the building owner discovers significant water infiltration through the exterior curtain wall during a heavy rainstorm. The owner notifies the contractor on April 22. The contractor states they cannot investigate until May 15 — two weeks after the warranty expiration. Has the owner preserved their warranty claim?

- A. Yes, because the owner discovered the defect on April 20 and notified the contractor on April 22 — both within the warranty period — which preserves the claim, and the contractor cannot defeat the warranty obligation by delaying their response past the expiration date
- B. No, because the contractor's investigation must occur within the warranty period for the claim to be valid
- C. Yes, but only if the owner hires an independent inspector to document the water infiltration before the May 1 expiration date

D. No, because water infiltration during rainstorms is a maintenance issue, not a warranty defect

DOMAIN: PROJECT MANAGEMENT (6 Questions)

20. A project manager on a \$9,000,000 commercial project calculates earned value metrics at the 60% completion mark: BAC = \$9,000,000; PV = \$5,400,000; EV = \$4,950,000; AC = \$5,200,000. What are the SPI, CPI, and projected EAC if the current trend continues?

- A. SPI = 1.08 and CPI = 1.05, indicating the project is ahead of schedule and under budget
- B. SPI = 0.92 and CPI = 0.95, indicating the project is behind schedule but under budget
- C. SPI = 0.917 ($\$4,950,000 \div \$5,400,000$) and CPI = 0.952 ($\$4,950,000 \div \$5,200,000$) — both below 1.0, indicating the project is behind schedule and over budget, with an EAC of approximately \$9,454,000 ($\$9,000,000 \div 0.952$) if the cost trend continues
- D. The metrics indicate the project is on track because both indices are within 10% of 1.0

21. A contractor's superintendent discovers that a roofing subcontractor has been installing a singleply TPO membrane with 4inch seam overlaps instead of the manufacturerspecified 6inch minimum overlap. Approximately 8,000 square feet of roofing has been installed with the insufficient overlaps. The membrane has not been fully welded at the seams. What should the superintendent do?

- A. Accept the 4inch overlaps because the seams will be hotair welded, which compensates for the reduced overlap width
- B. Stop the roofing subcontractor immediately, document the nonconforming installation, notify the architect, and require the subcontractor to either increase the overlaps to the required 6inch minimum before welding (if the membrane can be repositioned) or remove and reinstall the affected sections at the subcontractor's expense — because insufficient seam overlaps compromise the roof's waterproofing integrity and void the manufacturer's warranty
- C. Apply an additional bead of sealant along each seam to compensate for the reduced overlap
- D. Document the reduced overlaps in the asbuilt drawings and address the issue through the manufacturer's warranty if leaks occur

22. A project schedule shows the following parallel chains converging at a common milestone (structural steel complete): Chain 1 has 18 days remaining; Chain 2 has 24 days remaining;

Chain 3 has 22 days remaining. A 5day delay occurs on Chain 1. What is the impact on the milestone date?

- A. The milestone is delayed by 5 days because any delay to any chain approaching a milestone extends the milestone by the full delay amount
- B. The milestone is delayed by 1 day because the delay pushes Chain 1 past Chain 2 by 1 day
- C. The milestone is delayed by 3 days because the delay pushes Chain 1 to 23 days, which is 1 day less than Chain 2's 24 days
- D. No impact on the milestone date — Chain 2 at 24 days is the controlling path, and Chain 1 with the 5day delay now takes 23 days, which is still shorter than Chain 2's 24 days, so Chain 2 continues to govern the milestone date

23. A contractor's daily report from Monday records: "At 9:15 AM, the building inspector rejected the framing inspection for the second floor due to three deficiencies: (1) two missing hurricane tie connectors at the roof-to-wall connection, (2) incorrect nailing pattern on the structural sheathing (6inch spacing used instead of the specified 4inch edge nailing), and (3) a bearing wall stud spacing of 24 inches instead of the specified 16 inches on center." Which deficiency has the most serious structural implication?

- A. The bearing wall stud spacing of 24 inches instead of 16 inches on center — this deficiency reduces the wall's load-carrying capacity by approximately one-third, which directly affects the structural integrity of the wall and all loads it supports from above, and requires either complete reframing of the affected wall sections or structural engineering analysis to determine if the wider spacing can be accepted with reinforcement
- B. The missing hurricane ties, because they are the most visible deficiency and easiest for the inspector to identify
- C. The incorrect nailing pattern, because sheathing fasteners are the primary structural connection between the wall framing and the exterior skin
- D. All three deficiencies are equally serious and no single item carries greater structural significance than the others

24. A contractor is managing the closeout phase of a commercial project. The punch list has been completed, as-built drawings submitted, O&M manuals delivered, and all training conducted. The architect has issued the certificate of final completion. The contractor submits the final payment application requesting \$195,000 in remaining retainage. The contract requires payment within 30 days of final completion certification. Day 35 passes with no payment. What should the contractor do?

- A. Accept the delay because 5 days past the deadline is within normal processing tolerance
- B. File a mechanics' lien immediately without any further communication with the owner
- C. Send a formal written demand to the owner citing the specific contract payment provision, the final completion certification date, the 30day payment deadline, and the current 5day pastdue status — requesting immediate payment and stating that continued nonpayment will result in the contractor pursuing all available contractual and legal remedies including interest on the overdue amount and mechanics' lien filing if the payment is not received within a specified period
- D. Withhold all warranty service until the retainage is paid because the owner's breach of payment terms voids the warranty obligation

25. A project's earned value analysis shows that the SPI has been steadily declining from 1.0 at Month 2 to 0.95 at Month 4 to 0.88 at Month 6. The CPI has remained stable at 1.02 throughout. What does this pattern indicate and what action is most appropriate?

- A. The stable CPI means no corrective action is needed because cost performance is the only metric that matters for project health
- B. The project is progressively falling further behind schedule while maintaining good cost control — the declining SPI trend indicates a worsening schedule problem that requires immediate schedule recovery measures such as adding crews, authorizing overtime, resequencing activities, or implementing other acceleration techniques, while the stable CPI suggests the schedule recovery can be achieved without budget concerns if additional resources are deployed efficiently
- C. The declining SPI indicates the project is becoming more costefficient over time because fewer resources are being consumed per unit of schedule progress
- D. The SPI decline is a normal statistical fluctuation that will selfcorrect in the second half of the project

DOMAIN: INSURANCE AND BONDING (3 Questions)

26. A contractor carries a CGL policy with a \$1,000,000 peroccurrence limit and a \$2,000,000 general aggregate. The contractor completes three projects during the policy year. Claims arise from two of the three completed projects: Claim A = \$950,000 (completed operations — water damage from defective plumbing); Claim B = \$1,200,000 (completed operations — structural damage from faulty foundation). The CGL policy has a separate productscompleted operations aggregate of \$2,000,000. How are the claims covered?

A. Claim A: CGL pays \$950,000 (within peroccurrence limit). Claim B: CGL pays \$1,000,000 (peroccurrence cap). Total CGL productscompleted operations payout: \$1,950,000 (within the \$2,000,000 aggregate). The remaining \$200,000 of Claim B exceeds the peroccurrence limit and must be covered by the contractor's umbrella policy or becomes the contractor's personal responsibility

B. Both claims are paid in full from the general aggregate because completed operations claims are not subject to peroccurrence limits

C. Only Claim A is covered because the productscompleted operations aggregate limits total coverage to one claim per policy year

D. Neither claim is covered because completed operations claims are excluded from standard CGL policies

27. A surety evaluates a contractor for a new \$1,800,000 performance bond. The contractor's financial statements show: working capital \$150,000; net worth \$480,000; existing bonded backlog \$1,600,000. The surety's multiplier is 15 times working capital. What is the surety's assessment?

A. Automatic approval because net worth exceeds 25% of the requested bond

B. Approval because the backlog is below the theoretical capacity and the contractor has demonstrated strong past performance

C. Total bonding capacity is \$2,250,000 ($15 \times \$150,000$), but with \$1,600,000 already committed, only \$650,000 of capacity remains — far short of the \$1,800,000 bond request, and the surety will likely deny the bond unless the contractor substantially increases working capital or completes existing bonded projects to free up capacity

D. Automatic denial because contractors cannot carry bonded backlog exceeding their net worth

28. A contractor's workers' compensation policy is audited at yearend. The auditor discovers that the contractor classified 4 workers performing structural steel erection (\$28.50 per \$100 of payroll) as general laborers (\$8.50 per \$100 of payroll). The misclassified payroll totals \$240,000. The contractor's EMR is 1.10. What is the approximate additional premium owed?

A. \$20,400, calculated at only the laborer rate on the misclassified payroll without adjusting for the classification difference

B. \$52,800, calculated at the steel erection rate on the full payroll without crediting the laborer premium already paid

C. \$0, because classification errors for steel erection workers are automatically waived during audits

D. Approximately \$52,800 in additional premium — calculated as the difference between the steel erection premium ($\$240,000 \div \$100 \times \$28.50 \times 1.10 = \$75,240$) and the laborer premium already paid ($\$240,000 \div \$100 \times \$8.50 \times 1.10 = \$22,440$), yielding \$52,800 owed, reflecting the dramatically different risk profiles between active steel erection and general labor

DOMAIN: OSHA RECORDKEEPING (3 Questions)

29. A construction worker trips over a piece of rebar on the jobsite and falls, striking their head on a concrete form. The worker is wearing a hard hat, which absorbs the primary impact. The worker reports a headache and slight dizziness. The site medic applies ice and monitors the worker for 30 minutes. The headache persists and the foreman sends the worker to an occupational health clinic. The doctor examines the worker, orders a CT scan (which reveals no injury), prescribes overthecounter acetaminophen, and releases the worker to return to full duty the next day. Is this case OSHA recordable?

A. Yes, because any head injury involving a loss of consciousness or altered mental status is automatically recordable

B. No, because the treatments received — CT scan for diagnostic purposes, OTC medication, and ice application — are all classified as first aid under OSHA definitions, the worker returned to full duty the next day, and no recordable outcome occurred (no lost time, no restricted duty, no medical treatment beyond first aid)

C. Yes, because the CT scan constitutes medical treatment beyond first aid that triggers recordability

D. Yes, because the worker experienced dizziness, which constitutes a "significant diagnosis" requiring recording

30. An employer with 55 construction employees has the following OSHA data for the year: 3 cases with days away from work totaling 45 lost days; 2 cases with restricted work totaling 20 restricted days; 6 cases with medical treatment beyond first aid only; 1 fatality. Total employee hours worked: 110,000. What are the company's TRIR and DART rate?

A. TRIR = 21.8 ($12 \text{ total cases} \times 200,000 \div 110,000$) and DART = 10.9 ($6 \text{ DART cases} \times 200,000 \div 110,000$) — TRIR includes all 12 recordable cases while DART includes only the 3 daysaway + 2 restricted + 1 fatality = 6 DART cases, and both rates significantly exceed construction industry averages

B. TRIR = 10.9 and DART = 21.8, with the two rates reversed from their correct formulas

C. TRIR = 12.0 and DART = 6.0, calculated without the 200,000 normalization factor

D. TRIR = 5.5 and DART = 3.0, calculated using 220,000 hours instead of 110,000

31. A construction worker develops severe lower back pain after repeatedly lifting heavy concrete blocks throughout a workweek. The worker visits a physician who diagnoses a workrelated lumbar strain, prescribes prescriptionstrength muscle relaxants, and places the worker on restricted duty (no lifting over 15 pounds) for 10 days. Under which OSHA 300 Log classification should this case be recorded?

A. "Days away from work" because the back injury is severe enough to prevent full duty

B. "Other recordable" because the prescription medication is the only recordability trigger

C. "Restricted work or job transfer" because the worker returned to work but with a lifting restriction that prevents them from performing the full range of routine job functions — the restricted duty classification applies when a physician restricts one or more routine job functions, and this takes precedence over the "other recordable" classification even though the prescription medication is also a trigger

D. The case should not be recorded because back strains from lifting are classified as repetitive strain injuries exempt from OSHA recording requirements

DOMAIN: PERSONNEL REGULATIONS (8 Questions)

32. A contractor with 65 employees has a carpenter who has worked for the company for 8 years. The carpenter's spouse is diagnosed with cancer requiring weekly chemotherapy for 20 weeks. The carpenter requests intermittent FMLA leave to accompany their spouse to each weekly treatment session (approximately 6 hours per session). Under the FMLA, is the employer required to grant this intermittent leave?

A. No, because intermittent leave to care for a family member is available only for the initial hospitalization, not for ongoing outpatient treatments

B. No, because the FMLA limits family care leave to continuous blocks of at least one week

C. Yes, but only for the first 8 weeks of treatment because intermittent leave for spouse care is capped at 8 weeks

D. Yes, because the FMLA provides up to 12 weeks of leave — including intermittent leave when medically necessary — to care for a spouse with a serious health condition, and the employer has 65 employees (exceeding the threshold) with the carpenter having 8 years of tenure (exceeding the eligibility requirement)

33. A nonexempt laborer earns \$24.00 per hour and works 50 hours during a workweek. The employer provides a \$160 nondiscretionary monthly attendance bonus, paid in the last workweek of each month. This is that workweek. Under the FLSA, how does the monthly bonus affect the overtime calculation?

A. The monthly bonus is excluded from the regular rate because monthly bonuses are paid too infrequently to be included in the weekly overtime calculation

B. The \$160 monthly bonus must be prorated to the workweek ($\$160 \div 4.33 \text{ weeks} \approx \36.95) and included in the regular rate: regular rate = $(\$24.00 \times 50 + \$36.95) \div 50 = \$24.74$; overtime premium = $\$24.74 \times 0.5 = \$12.37 \times 10 \text{ hours} = \123.70 in additional overtime premium beyond straighttime earnings

C. The attendance bonus replaces the overtime premium because bonuseligible employees are classified as exempt from overtime

D. The bonus is added to total pay after the overtime calculation without affecting the regular rate

34. An employer with 30 employees terminates a 52-year-old estimator who has worked for the company for 11 years and consistently received excellent performance reviews. The employer replaces the estimator with a 28-year-old college graduate at a 40% lower salary. The terminated estimator files an ADEA complaint. The employer argues the termination was purely a cost-reduction measure. Under the ADEA's "butfor" causation standard, what is the critical legal question?

A. Whether age was the butfor cause of the termination — meaning the termination would not have occurred absent the estimator's age, and whether the "cost reduction" rationale is genuine or a pretext for age discrimination, given that the cost savings are achieved specifically by replacing an older, higherpaid worker with a younger, lowerpaid one and the terminated employee had 11 years of excellent performance reviews

B. Whether the employer had a written antiagediscrimination policy in the employee handbook

C. Whether the replacement employee is qualified for the estimator position regardless of age

D. Whether the employer offered the terminated estimator a severance package equal to 6 months' salary

35. An employer's safety policy requires all construction workers to wear highvisibility vests, hard hats, safety glasses, and steeltoed boots at all times on the jobsite. A worker refuses to wear safety glasses, claiming they cause headaches. The supervisor has offered two alternative brands of safety glasses and prescription safety glass inserts, all of which the worker has rejected. What should the employer do?

- A. Allow the worker to continue without safety glasses because the employer has made reasonable efforts to accommodate the worker's complaint
- B. Assign the worker to office duties that do not require safety glasses until a suitable alternative is found
- C. Issue a formal written warning for the PPE violation, document the accommodation efforts (two alternative brands and prescription inserts all rejected), and inform the worker that continued refusal to wear required safety glasses will result in progressive disciplinary action up to and including termination — because the employer has a legal duty to enforce PPE requirements and has exhausted reasonable accommodation options
- D. File an OSHA complaint against the worker for refusing to comply with the employer's safety program

36. A contractor operating on a DavisBacon covered project employs a worker classified as a carpenter. The prevailing wage determination specifies carpenter wages of \$38.00/hour plus \$17.50/hour in fringe benefits. The contractor pays the carpenter \$42.00/hour in wages, provides health insurance valued at \$8.00/hour, and makes a retirement contribution of \$3.50/hour. Is the contractor in compliance?

- A. Yes, because the \$42.00 wage exceeds the \$38.00 base wage requirement
- B. No, because retirement contributions do not qualify as fringe benefits under DavisBacon
- C. Yes, because the total compensation of \$53.50/hour exceeds the base wage of \$38.00 by a wide margin
- D. No, because total compensation is \$53.50/hour ($\$42.00 + \$8.00 + \3.50) while the required total is \$55.50/hour ($\$38.00 + \17.50), leaving a \$2.00/hour shortfall — the excess wage of \$4.00 above the base rate helps offset the fringe shortfall, but the combined total still falls \$2.00 short of the required minimum

37. An employer terminates a worker for willful misconduct — specifically, the worker was caught operating a forklift while intoxicated on the jobsite. The employer has documentation including breathalyzer results (BAC 0.14%), eyewitness statements from three coworkers, and the worker's signed acknowledgment of the company's drugfree workplace policy. The worker files for unemployment benefits. What is the likely outcome?

- A. The worker will receive full benefits because alcoholism is a medical condition protected under the ADA
- B. The worker will likely be denied benefits because operating heavy equipment while intoxicated constitutes willful misconduct — the breathalyzer results, witness statements, and

signed policy acknowledgment provide overwhelming documented evidence of knowing violation of a serious safety rule that endangered everyone on the jobsite

C. The worker will receive benefits at a reduced rate because substance abuse offenses are classified as mitigated misconduct

D. The unemployment agency will defer the decision until criminal charges for the intoxication are resolved in court

38. An employer with 55 employees receives an FMLA leave request from a project superintendent who wants to take 4 weeks of leave to care for their 22-year-old adult child who was seriously injured in a car accident and is hospitalized. The superintendent has worked for the company for 6 years. Under the FMLA, is this leave request covered?

A. Yes, because the FMLA covers leave to care for a "son or daughter" with a serious health condition — while the FMLA definition of "son or daughter" primarily covers minor children (under 18), it also covers adult children who are incapable of self-care due to a mental or physical disability, and a 22-year-old hospitalized with serious injuries from a car accident may be temporarily incapable of self-care, potentially qualifying under this provision

B. No, because the FMLA covers leave to care for children only if the child is under the age of 18

C. Yes, because all children regardless of age are covered family members under the FMLA

D. No, because FMLA leave for adult children is available only under the military caregiver leave provision

39. A contractor's HR manager discovers that the company has been requiring all job applicants to undergo medical examinations before extending conditional job offers. Several applicants with disclosed disabilities were not hired after the medical results were reviewed. Under the ADA, what violation has occurred?

A. No violation because medical examinations are permitted at any stage of the hiring process for safety-sensitive positions

B. A minor procedural violation that can be corrected by moving the medical examination to after the conditional job offer

C. A significant ADA violation — the ADA prohibits preoffer medical examinations, and rejecting applicants based on preoffer medical results constitutes disability discrimination, exposing the employer to back pay, compensatory damages, and injunctive relief requiring the employer to restructure their hiring process

D. A violation only if more than 50% of the rejected applicants had disclosed disabilities

40. An employer with 40 employees has a worker who has exhausted their 12 weeks of FMLA leave for a serious health condition. The worker's physician releases the worker to return to work with a permanent restriction: no climbing ladders or scaffolds. The worker's regular job as a commercial painter requires extensive ladder and scaffold work. Under the ADA, what must the employer do?

A. Terminate the worker immediately because they cannot perform the essential functions of their painter position

B. Engage in the ADA interactive process to determine whether the climbing restriction can be reasonably accommodated — potential accommodations include reassignment to an available vacant position (such as interior detail painting, brush/roller work, or a paint shop position) that does not require climbing, and the employer must explore these options before concluding that accommodation is not possible

C. Hold the painter position open indefinitely until the worker's restriction is lifted

D. Create a new position specifically designed around the worker's restriction because the ADA requires employers to create positions that accommodate disabilities

41. A contractor operating on a DavisBacon covered project has laborers who work 48 hours during a workweek. The prevailing wage determination specifies laborer wages of \$24.00/hour plus \$11.50/hour in fringe benefits. How must the 8 overtime hours be compensated?

A. All 48 hours at the overtime rate of \$36.00 wage ($\24.00×1.5) plus \$17.25 fringe ($\11.50×1.5) because overtime applies to both components

B. 40 hours at \$24.00 wage + \$11.50 fringe, and 8 hours at \$24.00 wage + \$17.25 fringe ($\$11.50 \times 1.5$) because DavisBacon overtime applies only to the fringe benefit

C. No overtime because DavisBacon projects with prevailing wages that include fringe benefits are exempt from FLSA overtime

D. 40 hours at \$24.00 wage plus \$11.50 fringe, and 8 overtime hours at \$36.00 wage ($1.5 \times \24.00) plus \$11.50 fringe at the straighttime rate — the overtime premium applies only to the cash wage, while the fringe benefit continues at the straighttime rate for all 48 hours

42. An employer's I9 compliance audit reveals that 8 current employees have I9 forms where Section 2 (employer verification) was completed using expired documents that were expired at the time of initial verification. The HR representative accepted expired driver's licenses and expired passport cards when completing the original I9s. What is the employer's exposure?

- A. Significant exposure — accepting expired documents for I9 verification is a violation because Section 2 requires unexpired documents, and each deficient I9 constitutes a separate violation subject to civil penalties, with the employer facing potential fines for all 8 forms
- B. No exposure because expired documents are acceptable for I9 purposes as long as the employee was legally authorized to work
- C. Minimal exposure because the violation is classified as a minor technical deficiency that results in a warning letter only
- D. Exposure only if the employees with expired documents are noncitizens

43. A contractor with 35 employees has a written progressive discipline policy and an atwill employment disclaimer in the same handbook. A worker is terminated for a second offense of the same safety violation — removing a machine guard from a table saw. The progressive discipline policy states second offenses receive a written warning, not termination. The atwill disclaimer states employment can be terminated at any time for any reason. The worker sues for wrongful termination. What is the most likely outcome?

- A. The worker will automatically prevail because the progressive discipline policy creates a binding employment contract
- B. The atwill disclaimer likely controls over the progressive discipline sequence for serious safety violations — removing a machine guard from a table saw is a lifethreatening safety violation that most courts would recognize as justifying accelerated discipline or immediate termination, and the atwill disclaimer preserves the employer's right to deviate from progressive discipline when circumstances warrant
- C. The employer will be forced to reinstate the worker and follow the progressive discipline sequence from the secondoffense step (written warning)
- D. The outcome depends entirely on whether the machine guard was removed accidentally or deliberately

44. A contractor's workers' compensation carrier reports that the company's EMR has increased from 0.88 to 1.22 over two years due to multiple serious claims. The annual base premium at EMR 1.0 is \$280,000. What is the total financial impact including both premium costs and operational consequences?

- A. The premium increases by \$8,400 annually with no operational impact beyond the cost
- B. The premium increases from \$246,400 (at 0.88) to \$341,600 (at 1.22) — a \$95,200 annual increase — and the EMR of 1.22 disqualifies the contractor from projects requiring a maximum EMR of 1.0, directly reducing available bidding opportunities, which compounds the financial impact beyond the premium increase itself

C. The premium decreases because a higher EMR indicates the contractor has more claims experience, which qualifies them for a volume discount

D. The EMR increase triggers an automatic OSHA audit of the contractor's safety program within 60 days

45. An employer fires a construction worker who refused to enter a confined space without the required atmospheric testing and ventilation. The employer's argument is that the worker was "insubordinate" for refusing a direct work order. The worker files a complaint with OSHA under Section 11(c) alleging retaliation for refusing unsafe work. What is the likely outcome?

A. The employer will prevail because employees cannot refuse direct work orders regardless of safety concerns

B. The employer will prevail because OSHA whistleblower protection does not cover work refusals — only formal written complaints filed with OSHA

C. The worker will receive limited protection — only back pay for 30 days because OSHA retaliation damages are capped

D. The worker will likely prevail because OSHA Section 11(c) protects employees who refuse work they reasonably believe poses imminent danger of death or serious injury — entering a confined space without atmospheric testing and ventilation creates a recognized immediately dangerous to life or health (IDLH) situation, and the refusal constitutes protected safety activity

DOMAIN: FINANCIAL MANAGEMENT (5 Questions)

46. A contractor's WIP report shows Project Gamma: revised contract \$2,400,000; estimated total cost \$2,040,000; costs to date \$1,428,000; billings to date \$1,540,000. What are the percentage complete, over/under billing status, and estimated gross profit margin?

A. 70% complete ($\$1,428,000 \div \$2,040,000$), underbilled by \$140,000 (earned revenue of \$1,680,000 minus billings of \$1,540,000), with a 15% estimated gross profit margin ($\$360,000 \div \$2,400,000$)

B. 60% complete, overbilled by \$112,000, gross margin 10%

C. 75% complete, billings match earned revenue exactly, gross margin 18%

D. 70% complete, overbilled by \$140,000, gross margin 12%

47. A contractor uses the percentage of completion method on a \$3,600,000 project with original estimated costs of \$3,060,000. At the end of Year 1, costs incurred total \$1,530,000. At the end of Year 2, cumulative costs total \$2,448,000. The estimated total cost has not changed. What revenue is recognized in Year 2 only?

- A. \$1,800,000, equal to the Year 1 revenue repeated in Year 2
- B. \$2,880,000, representing the full cumulative revenue through Year 2
- C. \$1,080,000, calculated as Year 2 cumulative revenue (\$2,880,000 at 80% complete) minus Year 1 revenue (\$1,800,000 at 50% complete) — revenue is recognized incrementally by subtracting previously recognized amounts from the cumulative earned total
- D. \$918,000, equal to the costs incurred in Year 2 only

48. A contractor's cash flow analysis projects the following 90 day period: beginning cash \$55,000; collections \$720,000; retainage releases \$45,000; credit line draws \$100,000. Projected outflows: payroll \$480,000; materials/subcontractors \$330,000; overhead \$80,000; equipment payments \$40,000; tax payments \$30,000. What is the projected ending cash position?

- A. Positive \$100,000, calculated by excluding tax and equipment payments
- B. Negative \$40,000, calculated as inflows (\$920,000) minus outflows (\$960,000) — the contractor faces a \$40,000 shortfall requiring additional financing, accelerated collections, or reduced expenditures to avoid cash insolvency
- C. Positive \$55,000, unchanged from the beginning balance
- D. Positive \$920,000, incorrectly using only the inflow total without subtracting outflows

49. A contractor's accounts receivable aging report shows: \$180,000 current (0-30 days); \$95,000 at 31-60 days; \$65,000 at 61-90 days; \$45,000 at 91-120 days; \$35,000 over 120 days. Total receivables: \$420,000. What is the most significant concern in this aging report?

- A. No concern because all receivables are within normal commercial collection timeframes
- B. The \$95,000 at 31-60 days is the primary concern because it exceeds the current balance as a percentage of total
- C. The \$65,000 at 61-90 days is the primary concern because it represents the tipping point where receivables begin to become uncollectible
- D. The \$80,000 combined in the 91-120 day and over 120 day categories represents the most significant concern — receivables beyond 90 days have an elevated risk of becoming

uncollectible, and the \$35,000 over 120 days may require a substantial bad debt reserve while the contractor simultaneously pursues all available collection remedies including demand letters, mechanics' liens, and legal action

50. A contractor's income statement shows: total revenue \$4,800,000; cost of construction \$4,080,000; G&A expenses \$432,000. What are the gross profit, gross margin, net income, and net margin?

A. Gross profit \$720,000 (15%), net income \$288,000 (6%) — calculated as: revenue minus cost = \$720,000; $\$720,000 \div \$4,800,000 = 15\%$ gross margin; \$720,000 minus \$432,000 G&A = \$288,000 net income; $\$288,000 \div \$4,800,000 = 6\%$ net margin

B. Gross profit \$432,000 (9%), net income \$0 (0%)

C. Gross profit \$720,000 (15%), net income \$432,000 (9%)

D. Gross profit \$480,000 (10%), net income \$48,000 (1%)

Practice Exam 25: Answer Key and Explanations

1. B — An LLC with SCorporation tax election addresses both concerns simultaneously. The LLC provides personal liability protection by separating business and personal assets, while the SCorporation election allows the owner to split income between salary (subject to FICA) and distributions (not subject to FICA). A sole proprietorship offers no liability protection, a general partnership creates unlimited personal liability, and a CCorporation creates double taxation.

2. D — Operating above the restricted cap is a licensing violation, but the contractor's prompt notification and upgrade application demonstrate good faith. The contractor should immediately contact the ACLB for guidance rather than assuming they can continue or that they must stop all work. The Board may provide interim authorization or specific instructions on how to proceed while the upgrade application is processed.

3. A — The general contractor may face liability for the injured worker's medical costs and disability benefits because they failed to verify the subcontractor's workers' compensation coverage. Many jurisdictions hold the GC responsible for uninsured subcontractors' workers' comp obligations. The GC's own carrier may also assess additional premium for the uninsured subcontractor's payroll exposure during the audit.

4. C — While the ACLB does not directly enforce Oklahoma law, the contractor's willingness to operate illegally in another jurisdiction is relevant to the Board's assessment of professional integrity. Performing unlicensed work in any state may be considered conduct reflecting on the contractor's character and fitness for Arkansas licensure. The Board has discretion to consider such conduct in licensing decisions.

5. B — A contractor with a suspended license cannot perform any construction work during the suspension period. All work performed constitutes unlicensed activity subject to additional disciplinary action. The contractor must arrange for properly licensed contractors to continue the three active projects or negotiate standstill agreements with the project owners until the suspension is lifted.

6. D — Total labor cost: $8 \text{ carpenters} \times \$46.00/\text{hour} \times 8 \text{ hours/day} \times 35 \text{ days} = \$102,880$. The calculation must account for the full crew size (8 workers), the loaded hourly rate (\$46.00), the daily hours (8), and the total duration (35 days). Using fewer workers, fewer hours, or fewer days produces a significantly understated estimate.

7. C — The owner can claim against the bid bond for the difference between the defaulting contractor's bid and the next lowest responsive bid, up to the bond's \$180,000 penal sum. The bid bond compensates the owner for the additional cost of awarding to a higher bidder. If the difference exceeds \$180,000, the owner's recovery is capped at the penal sum.

8. A — The contractor bears the cost of the excluded fire sprinkler connections because the estimator failed to verify that all quotes covered the same scope. This is an estimating oversight — the contractor must absorb the additional cost by negotiating with the low bidder, engaging another subcontractor, or selfperforming the excluded work. The owner is not responsible for the contractor's scope verification failure.

9. B — Structural steel: $520 \times \$3,400 = \$1,768,000$. Miscellaneous metals: $95 \times \$5,200 = \$494,000$. Subtotal: \$2,262,000. Contingency: $\$2,262,000 \times 0.02 = \$45,240$. Total: \$2,307,240. The contingency covers unforeseen costs such as field modifications, connection changes, and material waste common in structural steel packages.

10. D — When a conflict exists between architectural and structural drawings, the contractor must not choose one over the other unilaterally. The correct action is to stop work in the affected area and submit an RFI identifying the conflict. The design team must coordinate the resolution because choosing incorrectly could create either a structural deficiency or an architectural deviation.

11. C — The flowdown provision makes the prime contract's \$2,000,000 CGL requirement binding on the painting subcontractor. The GC should notify the subcontractor of the deficiency and require them to increase coverage within a specified timeframe. The GC has an obligation to the owner to ensure all subcontractors maintain required insurance levels.

12. A — The contract specifies deductive change orders at "direct cost savings." The deduction is \$76,000 in direct costs. The contractor retains the \$19,000 in overhead and profit because the contract's deductive change order provision protects the contractor's margin on deleted scope. The owner saves \$76,000, not the full \$95,000 bid value.

13. B — Excusable delay clauses typically provide additional time but not additional monetary compensation. The financial risk of delays caused by events beyond either party's control generally remains with the contractor. The 4week time extension prevents liquidated damages from being assessed, but the \$48,000 in extended overhead is generally the contractor's cost to absorb.

14. D — The GC has no contractual basis for withholding earned payment as a warranty reserve when the subcontract does not authorize postcompletion holdbacks. Retainage is security for completion, not a warranty fund. The subcontractor completed all work, the GC received the owner's payment, and using "leverage" to withhold earned funds breaches the subcontract's payment provisions.

15. A — The surety can provide financial assistance including operating capital, material financing, or accelerated payment processing. Early intervention typically costs the surety less than responding after a formal default. Helping the original contractor finish is usually more economical than hiring a replacement contractor at premium rates to complete a partially finished project.

16. C — The contractor should acknowledge the directive in writing, submit a change order proposal for \$125,000 with schedule impact, and state they will proceed while tracking costs on a T&M basis. This approach balances responsiveness to the owner's urgency with the contractor's right to full compensation. Proceeding under protest with documented costs preserves the contractor's claim.

17. B — The contractor should complete the 98 undisputed items promptly while formally disputing the 12 outofscope items in writing. Each disputed item should be identified with a specific explanation of why it falls outside the contract documents. This approach demonstrates good faith on legitimate items while protecting the contractor's right to additional compensation for outofscope work.

18. A — Selfperformed: $\$65,000 \times 1.15 = \$74,750$. Subcontracted: $\$220,000 \times 1.08 = \$237,600$. Total: $\$74,750 + \$237,600 = \$312,350$. The different markup rates must be applied to each category based on who performs the work. The contractor earns the higher 15% markup only on work they selfperform.

19. D — The Spearin Doctrine establishes that the owner impliedly warrants the adequacy of the plans and specifications. The architect's design assumed the existing 400amp panel would accommodate 600amp loads — an implied representation the contractor relied upon. The actual condition (insufficient capacity) differs from the design assumption, making the \$48,000 upgrade the owner's financial responsibility through a change order.

20. B — All three cylinder break tests are below the 4,500 PSI specification. The GC must notify the architect and structural engineer and request a formal determination. "Close enough" does not satisfy structural concrete specifications. The engineer may order core testing, load testing, or removal and replacement depending on the severity of the strength deficiency and the structural significance of the element.

21. C — $SPI = \$4,950,000 \div \$5,400,000 = 0.917$ (behind schedule). $CPI = \$4,950,000 \div \$5,200,000 = 0.952$ (over budget). $EAC = \$9,000,000 \div 0.952 = \$9,454,000$. Both indices below 1.0 confirm the project is behind schedule and over budget. The projected \$454,000 overrun requires immediate corrective action.

22. B — Insufficient seam overlaps (4 inches vs. the required 6inch minimum) compromise waterproofing integrity and void the manufacturer's warranty. The superintendent must stop the work immediately and require correction before welding. If the membrane can be

repositioned to achieve the 6inch overlap, that is preferred. Otherwise, the affected sections must be removed and reinstalled at the subcontractor's expense.

23. D — Chain 2 at 24 days is the controlling path. Chain 1 with the 5day delay now takes 23 days (18 + 5), which is still shorter than Chain 2's 24 days. Chain 3 at 22 days is also shorter. Chain 2 continues to govern the milestone date. The delay consumed Chain 1's float but did not push it past the controlling path.

24. A — The bearing wall stud spacing of 24 inches instead of 16 inches reduces the wall's loadcarrying capacity by approximately onethird. This directly affects the structural integrity of the wall and all loads it supports from above. The wall must either be reframed to the specified 16inch spacing or undergo structural engineering analysis to determine if the wider spacing can be accepted with reinforcement.

25. B — The SPI declining from 1.0 to 0.88 over six months indicates a progressively worsening schedule problem. The stable CPI of 1.02 shows good cost control. The project needs schedule recovery measures — additional crews, overtime, resequencing, or other acceleration techniques. The stable CPI suggests these resources can be deployed without budget concerns if managed efficiently.

26. A — Claim A: CGL pays \$950,000 (within peroccurrence limit). Claim B: CGL pays \$1,000,000 (peroccurrence cap). Total productscompleted operations payout: \$1,950,000 (within the \$2,000,000 aggregate). The remaining \$200,000 of Claim B exceeds the peroccurrence limit and requires coverage from the umbrella policy or becomes the contractor's personal responsibility.

27. C — Bonding capacity: $15 \times \$150,000 = \$2,250,000$. Existing backlog: \$1,600,000. Available: \$650,000. The \$1,800,000 bond request exceeds available capacity by \$1,150,000. The surety will likely deny the bond unless the contractor substantially increases working capital or completes existing bonded projects to free capacity.

28. D — Steel erection premium: $(\$240,000 \div \$100) \times \$28.50 \times 1.10 = \$75,240$. Laborer premium paid: $(\$240,000 \div \$100) \times \$8.50 \times 1.10 = \$22,440$. Difference: \$52,800. The massive rate differential (\$28.50 vs. \$8.50) reflects the dramatically different risk profiles — structural steel erection is among the most hazardous construction classifications.

29. B — The treatments received — CT scan for diagnostic purposes, OTC acetaminophen, and ice application — are all classified as first aid under OSHA definitions. The worker returned to full duty the next day with no restrictions. No recordable outcome occurred — no lost time, no restricted duty, and no medical treatment beyond first aid. An ER or clinic visit alone does not trigger recordability.

30. A — Total recordable cases: $3 + 2 + 6 + 1 = 12$. TRIR = $(12 \times 200,000) \div 110,000 = 21.8$. DART cases: $3 + 2 + 1 = 6$. DART = $(6 \times 200,000) \div 110,000 = 10.9$. Both rates are catastrophically high — a TRIR of 21.8 is approximately five to seven times the construction industry average, indicating severe safety management failures.

31. C — The worker returned to work with a restriction (no lifting over 15 pounds) that prevents them from performing the full range of routine job functions. Restricted work takes precedence over "other recordable" even though the prescription medication is also a

recordability trigger. The case is recorded under the "restricted work or job transfer" column with the number of restricted days documented.

32. D — The FMLA provides up to 12 weeks of leave — including intermittent leave when medically necessary — to care for a spouse with a serious health condition. Cancer requiring weekly chemotherapy is unquestionably a serious health condition. The employer has 65 employees (above threshold) and the carpenter has 8 years of tenure (exceeding eligibility). The weekly 6hour sessions are deducted from the 12week entitlement.

33. B — Nondiscretionary monthly bonuses must be prorated and included in the regular rate. Weekly proration: $\$160 \div 4.33 = \36.95 . Regular rate: $(\$24.00 \times 50 + \$36.95) \div 50 = \$24.74$. Overtime premium: $\$24.74 \times 0.5 = \$12.37 \times 10 \text{ hours} = \123.70 additional premium. The bonus increases the effective overtime cost above the base rate alone.

34. A — The ADEA's butfor standard asks whether the termination would have occurred absent the estimator's age. The "cost reduction" rationale is suspect when the savings are achieved specifically by replacing an older, higherpaid worker with a younger, lowerpaid one. Eleven years of excellent performance reviews contradict any performancebased justification and suggest the stated reason is pretext.

35. C — The employer has a legal duty to enforce PPE requirements and has exhausted reasonable accommodation options (two alternative brands and prescription inserts). A formal written warning documenting the accommodation efforts and informing the worker of progressive discipline consequences is the appropriate next step. Allowing the worker to continue without safety glasses exposes the employer to OSHA citations and liability.

36. D — Required total: $\$38.00 + \$17.50 = \$55.50/\text{hour}$. Actual total: $\$42.00 + \$8.00 + \$3.50 = \$53.50/\text{hour}$. The $\$4.00$ excess in wages partially offsets the fringe shortfall, but the combined total still falls $\$2.00/\text{hour}$ short. The contractor must either increase the cash wage or increase the fringe benefit contributions to close the $\$2.00$ gap.

37. B — Operating a forklift while intoxicated (BAC 0.14%) constitutes willful misconduct. The breathalyzer results, three eyewitness statements, and signed policy acknowledgment provide overwhelming evidence of knowing violation of a serious safety rule. Unemployment agencies recognize that operating heavy equipment while intoxicated endangers everyone on the jobsite and constitutes disqualifying conduct.

38. A — The FMLA covers leave to care for adult children who are incapable of selfcare due to a mental or physical disability. A 22yearold hospitalized with serious injuries from a car accident may be temporarily incapable of selfcare, potentially qualifying under this provision. The specific circumstances — severity of injuries, hospitalization status, and selfcare capacity — determine eligibility.

39. C — The ADA prohibits preoffer medical examinations. Conducting medical exams before extending conditional job offers and then rejecting applicants based on the results constitutes disability discrimination. The employer faces back pay, compensatory damages, and injunctive relief. Medical examinations are permitted only after a conditional offer has been made and must be applied uniformly.

40. B — After FMLA exhaustion, the ADA's interactive process applies. The employer must explore reasonable accommodations for the permanent climbing restriction — such as reassignment to available vacant positions that do not require ladder or scaffold work. Interior detail painting, brush/roller work, or paint shop positions may accommodate the restriction. Termination is appropriate only after accommodation options are exhausted.

41. D — Under DavisBacon, the overtime premium applies only to the cash wage. Straight time: 40 hours \times (\$24.00 + \$11.50). Overtime: 8 hours \times (\$36.00 wage [1.5 \times \$24.00] + \$11.50 fringe at straighttime). The fringe benefit continues at straighttime for all 48 hours and is never multiplied by the 1.5 overtime factor.

42. A — Accepting expired documents for I9 Section 2 verification is a violation because the regulation requires unexpired documents. Each of the 8 deficient forms constitutes a separate violation subject to civil penalties. The employer faces potential fines for all 8 forms, with amounts depending on whether it is a first offense or repeat violation.

43. B — Removing a machine guard from a table saw is a lifethreatening safety violation. The atwill disclaimer preserves the employer's right to deviate from progressive discipline for serious misconduct. Most courts recognize that certain offenses — particularly those involving immediate danger to life — justify accelerated discipline regardless of the progressive discipline sequence's general firstoffense provision.

44. B — Premium at 0.88: $\$280,000 \times 0.88 = \$246,400$. Premium at 1.22: $\$280,000 \times 1.22 = \$341,600$. Annual increase: \$95,200. Beyond the premium cost, the EMR of 1.22 disqualifies the contractor from projects requiring maximum EMR of 1.0, directly reducing bidding opportunities. The combined premium increase and lost bidding opportunities create a compounding financial impact.

45. D — OSHA Section 11(c) protects employees who refuse work they reasonably believe poses imminent danger. Entering a confined space without atmospheric testing and ventilation creates an IDLH condition — a recognized lifethreatening hazard. The worker's refusal constitutes protected safety activity, and the termination is unlawful retaliation regardless of how the employer characterizes it.

46. A — Percentage complete: $\$1,428,000 \div \$2,040,000 = 70\%$. Earned revenue: $70\% \times \$2,400,000 = \$1,680,000$. Billings: \$1,540,000. Underbilled by \$140,000. Gross profit: $\$2,400,000 - \$2,040,000 = \$360,000$. Gross margin: $\$360,000 \div \$2,400,000 = 15\%$. The underbilling means the contractor has performed \$140,000 more work than invoiced.

47. C — Year 1: 50% complete ($\$1,530,000 \div \$3,060,000$). Revenue = $50\% \times \$3,600,000 = \$1,800,000$. Year 2: 80% complete ($\$2,448,000 \div \$3,060,000$). Cumulative revenue = $80\% \times \$3,600,000 = \$2,880,000$. Year 2 incremental revenue = $\$2,880,000 - \$1,800,000 = \$1,080,000$. Revenue is recognized by subtracting previously recognized amounts.

48. B — Inflows: $\$55,000 + \$720,000 + \$45,000 + \$100,000 = \$920,000$. Outflows: $\$480,000 + \$330,000 + \$80,000 + \$40,000 + \$30,000 = \$960,000$. Net: $\$920,000 - \$960,000 = -\$40,000$. The contractor faces a \$40,000 shortfall requiring additional financing, accelerated collections, or reduced expenditures.

49. D — The \$80,000 combined in the 91120 day (\$45,000) and over120day (\$35,000) categories represents the highest collection risk. Receivables beyond 90 days have significantly elevated uncollectibility risk. The \$35,000 over 120 days likely requires a substantial bad debt reserve while the contractor pursues all collection remedies — demand letters, liens, and legal action.

50. A — Gross profit: $\$4,800,000 - \$4,080,000 = \$720,000$. Gross margin: 15%. Net income: $\$720,000 - \$432,000 = \$288,000$. Net margin: $\$288,000 \div \$4,800,000 = 6\%$. A 15% gross margin indicates strong project profitability and a 6% net margin reflects healthy bottomline performance after overhead.