

PRACTICE EXAM 30: ARKANSAS BUSINESS AND LAW SIMULATION (50 QUESTIONS)

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

This practice exam 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 operates as an SCorporation with two equal shareholders who both work fulltime. The company earns \$500,000 in net income. Each shareholder takes a salary of \$100,000 and a distribution of \$150,000. The contractor's CPA explains that the IRS may scrutinize the salary levels. If the IRS determines a reasonable salary for each shareholder is \$140,000, what is the total additional FICA tax exposure for both shareholders combined, and what is the underlying principle the IRS applies?

A. \$0, because the IRS does not have authority to reclassify SCorporation distributions as wages

B. \$6,120, calculated at 15.3% on only \$20,000 per shareholder because the IRS uses a graduated reclassification formula

C. Approximately \$12,240 — the IRS reclassifies \$40,000 per shareholder (\$140,000 reasonable minus \$100,000 paid) from distributions to salary, subjecting \$80,000 combined to the 15.3% FICA rate, because the underlying principle is that SCorporation shareholders who perform services must pay themselves a reasonable salary before taking taxadvantaged distributions

D. \$76,500, calculated at 15.3% on the full \$300,000 in combined distributions because all distributions from personalservice SCorporations are presumptively reclassified as wages

DOMAIN: LICENSING (4 Questions)

2. A contractor holds an unrestricted commercial license with Building Construction (BU) and Mechanical Construction (ME) classifications. A project owner asks the contractor to build a new 50,000gallon elevated water storage tank for a municipal water system. The project value is \$620,000. Can the contractor perform this work under their existing classifications?

A. The contractor should verify with the ACLB whether an elevated water storage tank falls within their existing BU or ME classifications or whether it requires additional classifications such as Utility Construction (UT) or Heavy Construction (HE) — water storage tank construction involves specialized structural, welding, and coating requirements that may not be covered by standard building or mechanical classifications

B. Yes, because the ME classification covers all water system components including elevated storage tanks

C. Yes, because the BU classification covers all structures regardless of their function or the specialized construction techniques required

D. No, because elevated water storage tanks can only be built by federally licensed tank fabrication contractors

3. A licensed contractor in Arkansas is convicted of a felony for tax evasion related to their construction business — specifically, underreporting \$800,000 in revenue over a 3year period. The contractor's construction work quality has been excellent with no complaints. Can the ACLB take disciplinary action based on the felony conviction?

A. No, because the ACLB can only discipline contractors for constructionrelated deficiencies, not for tax offenses

B. No, because the contractor's excellent work quality record protects them from disciplinary action for financial crimes

C. Yes, but only if the tax evasion involved funds collected from a specific construction project owner

D. Yes, because a felony conviction — particularly one involving financial fraud in the construction business — reflects directly on the contractor's character, fitness, and trustworthiness to hold a professional license, and the ACLB can consider criminal convictions as grounds for disciplinary action including suspension or revocation

4. A contractor applies for an Arkansas restricted commercial license. The ACLB requires the applicant to provide evidence of construction experience. The applicant submits documentation showing 8 years of experience as a construction project manager for a general contractor,

including managing projects ranging from \$200,000 to \$2,000,000. The applicant has never personally held a contractor's license in any state. Does this experience qualify?

A. No, because only experience as a licensed contractor counts toward the ACLB's experience requirement

B. Yes, because the ACLB evaluates construction experience broadly — project management experience with a licensed contractor demonstrates direct involvement in commercial construction operations including scheduling, budgeting, subcontractor coordination, quality control, and code compliance, which satisfies the practical experience requirement

C. No, because the applicant must have owned a construction company for at least 5 years to qualify

D. Yes, but only the first 4 years count because the ACLB discounts experience gained as an employee rather than an owner

5. The ACLB receives a complaint that a contractor has been performing commercial construction work in Arkansas using a license issued by Mississippi through the NASCLA interstate licensing program. The contractor claims their Mississippi NASCLA license automatically authorizes them to work in Arkansas. Is the contractor's claim valid?

A. Yes, because NASCLA accreditation creates automatic reciprocal licensing between all participating states

B. Yes, because Mississippi and Arkansas have a bilateral licensing agreement that waives all separate licensing requirements

C. No, because NASCLA accreditation streamlines the licensing process but does not create automatic reciprocity — the contractor must apply for an Arkansas license separately, using their NASCLA exam results to satisfy Arkansas's trade exam requirement while meeting all other Arkansas-specific requirements including the Business and Law exam, financial qualifications, and surety bond

D. No, because NASCLA is a voluntary trade association with no regulatory authority over state licensing

DOMAIN: ESTIMATING AND BIDDING (4 Questions)

6. A contractor's estimator calculates the following for a commercial project: direct costs \$1,480,000; annual overhead \$414,000 on \$2,760,000 annual direct cost volume; target net profit margin 7% on selling price. What is the correct selling price?

- A. \$1,480,000, representing direct costs with no overhead or profit
- B. \$1,602,200, calculated with overhead but using a 7% markup on cost instead of a 7% margin on selling price
- C. \$1,702,000, calculated by adding overhead and profit using industry standard flat percentages
- D. \$1,809,247, calculated by allocating overhead at 15% (\$222,000), adding to direct costs (\$1,702,000), and dividing by 0.93 to achieve exactly 7% margin on selling price ($\$1,702,000 \div 0.93$)

7. A public project requires sealed bids with mandatory prebid conference attendance. The bid documents state that bidders who do not attend the prebid conference are ineligible to submit bids. A contractor sends their project manager to the conference, but the project manager arrives 20 minutes late and misses the attendance sign-in. The contractor submits the lowest bid. The second lowest bidder protests, arguing the lowest bid should be rejected for noncompliance with the mandatory attendance requirement. What is the likely outcome?

- A. The lowest bid will likely be rejected because the bid documents established mandatory attendance as a prerequisite for bid eligibility — the contractor's representative was not recorded on the attendance sheet, and strict enforcement of bid requirements is standard practice in public procurement to maintain fairness and prevent selective waiver of rules
- B. The lowest bid will be accepted because arriving 20 minutes late is a minor infraction that does not affect the substance of the bid
- C. The protest will be dismissed because only the project owner — not a competing bidder — has standing to challenge bid compliance
- D. The lowest bid will be accepted with the condition that the contractor must attend a makeup prebid conference within 10 days

8. A contractor needs to estimate the labor cost for installing 24,000 square feet of commercial carpet tile. The installation crew consists of 4 workers, each earning a loaded rate of \$38.00 per hour. The crew's combined daily productivity is 480 square feet per 8-hour day. What is the estimated total labor cost?

- A. \$15,200, calculated using an inflated productivity rate of 960 square feet per day
- B. \$60,800, calculated as: total days = $24,000 \div 480 = 50$ days; total labor hours = $50 \text{ days} \times 8 \text{ hours} \times 4 \text{ workers} = 1,600$ hours; total cost = $1,600 \times \$38.00 = \$60,800$
- C. \$30,400, calculated using only 2 workers instead of the specified 4 worker crew
- D. \$76,000, calculated by doubling the duration to account for pattern matching and waste

9. A contractor receives subcontractor quotes for the roofing work on a commercial project: \$195,000, \$210,000, \$205,000, and \$175,000. The \$175,000 lowest quote excludes the roof drain connections, counterflashing, and sheet metal coping — items that the specification assigns to the roofing contractor. The other three quotes include these items. The estimator contacts the low bidder, who provides an additional \$32,000 for the excluded scope. What should the estimator do?

- A. Use the original \$175,000 quote and add the excluded items as a separate allowance
- B. Use the \$195,000 second lowest quote because the low bidder's initial exclusions demonstrate poor attention to the specification
- C. Average all four quotes including the adjusted low bid (\$207,000) and use the average
- D. Compare the adjusted low bid (\$207,000) against the three complete quotes (\$195,000, \$210,000, \$205,000) — the \$195,000 quote is now the lowest complete bid, and the estimator should evaluate all four normalized quotes based on price, qualifications, and reliability before selecting the best value for the bid

DOMAIN: CONTRACT MANAGEMENT (8 Questions)

10. A contractor on a fixed price commercial project submits a change order for \$48,000 for additional structural work required by a design revision issued by the architect during construction. The owner approves the change order but deducts \$48,000 from the architect's next fee payment. The architect objects, arguing the design revision was requested by the owner. Under standard contract relationships, how should this situation be resolved?

- A. The owner should pay the architect's full fee and recover the \$48,000 from the contractor because the contractor should have identified the design issue before construction began
- B. The contractor should bill the architect directly because design revision costs are the architect's financial responsibility

C. The owner pays the contractor \$48,000 through the change order process, and the dispute over whether the design revision was the architect's error or the owner's requested change is resolved separately between the owner and the architect under their professional services agreement — the contractor's payment should not be delayed by the owner/architect dispute

D. The \$48,000 should be split three ways between the owner, architect, and contractor because all parties share responsibility for design revisions

11. A general contractor on a commercial project subcontracts the elevator installation. The elevator subcontractor falls 6 weeks behind schedule, delaying the overall project by 4 weeks because the elevators are on the critical path. The prime contract includes liquidated damages of \$3,500 per day. The owner assesses \$98,000 in liquidated damages (28 days × \$3,500). The subcontract includes a flowdown liquidated damages clause. Can the GC pass the \$98,000 to the elevator subcontractor?

A. Yes, if the GC can demonstrate that the elevator subcontractor's 6week delay was the proximate cause of the 4week project delay — the flowdown clause creates the contractual basis, and the GC must prove the causal connection between the subcontractor's delay and the liquidated damages assessed by the owner

B. No, because liquidated damages flow only from owners to general contractors and cannot be further allocated

C. Yes, but only for 50% of the assessed amount because concurrent delays always result in equal cost sharing

D. No, because the subcontractor's 6week delay caused only 4 weeks of project delay, creating a proportionality problem that voids the flowdown clause

12. A project owner issues a stopwork directive ordering the contractor to halt all construction for 18 days while the architect redesigns the building's main entrance canopy. The stopwork is not caused by any fault of the contractor. During the 18day suspension, the contractor incurs \$42,000 in extended overhead (supervision, security, equipment standby, temporary facilities). The contract's suspension clause provides for time extensions but is silent on monetary compensation. What is the contractor entitled to?

A. Nothing beyond the time extension because the suspension clause is silent on monetary compensation

B. The 18day time extension under the suspension clause, plus the contractor may pursue the \$42,000 under the changes clause or constructive change theory — an ownerdirected suspension for redesign modifies the contractor's performance conditions, and courts frequently recognize ownercaused suspensions as compensable events even when the suspension clause itself does not address damages

- C. Only the difference between the \$42,000 in actual overhead and the contractor's daily overhead rate as stated in the bid breakdown
- D. The \$42,000 plus an additional 15% markup for the inconvenience of the unplanned suspension

13. A contractor on a school renovation discovers concealed lead paint on structural steel columns throughout the building. The prerenovation environmental assessment provided with the bid documents tested only wall surfaces and ceiling finishes for lead — it did not test the steel columns. The assessment stated: "Leadbased paint was not detected on tested surfaces." The lead abatement for the steel columns will cost \$92,000. Under the differing site conditions clause, is this the owner's responsibility?

- A. No, because the environmental assessment accurately reported that no lead was found on the surfaces it tested, and the contractor should have requested additional testing of the steel columns
- B. No, because lead paint is a foreseeable condition in older buildings and the contractor should have included a lead contingency in their bid
- C. Yes, but only for half the cost because the contractor should share responsibility for conditions not addressed in the environmental assessment
- D. Yes, because the environmental assessment created an implied representation that the renovation areas were free of lead hazards — while the assessment accurately reported results for tested surfaces, it failed to identify lead on the steel columns, and the contractor reasonably relied on the assessment's scope to represent the full range of lead conditions in the renovation area

14. A subcontractor on a commercial project completes their mechanical (HVAC) roughin and requests a progress payment of \$145,000. The general contractor's project manager inspects and verifies \$130,000 of work is properly installed. However, \$15,000 of ductwork was installed using 24gauge sheet metal instead of the specified 22gauge. The thinner ductwork does not meet the specification. The GC approves \$130,000 and withholds \$15,000 pending correction. Is this proportionate withholding appropriate?

- A. Yes, because proportionate withholding for nonconforming work is an appropriate contractual remedy — paying \$130,000 for conforming work and withholding \$15,000 for the 24gauge ductwork that does not meet the 22gauge specification compensates the subcontractor for satisfactory work while creating financial incentive to correct the deficiency
- B. No, the GC should pay the full \$145,000 and pursue correction through a separate backcharge

C. Yes, but the GC should withhold the entire \$145,000 until all ductwork meets the specification

D. No, because the gauge difference between 24 and 22 is negligible and does not justify withholding payment

15. A construction contract requires the contractor to carry \$2,000,000 in CGL coverage and to name the owner, architect, and construction manager as additional insureds on the policy. The contractor's insurance broker issues certificates of insurance showing the required coverage. During construction, the contractor's CGL policy is cancelled for nonpayment of premium. The broker does not notify the owner, architect, or construction manager of the cancellation. Three weeks later, a visitor is injured on the jobsite and files a \$500,000 claim. What is the coverage situation?

A. The additional insureds are covered because the certificates of insurance constitute binding coverage agreements

B. The additional insureds are covered because the broker's failure to notify constitutes an automatic extension of coverage

C. The additional insureds have no CGL coverage because the policy was cancelled — certificates of insurance are informational documents that do not create or extend coverage, and the cancellation voids both the named insured's and the additional insureds' coverage under the policy

D. The contractor's umbrella policy automatically covers the gap created by the CGL cancellation

16. A contractor receives a verbal directive from the project architect to install a more expensive ceiling tile than specified. The architect states the owner "wants something nicer" in the main conference room. The upgrade costs \$8,500. The contractor installs the upgraded tiles without a written change order. When the contractor includes the \$8,500 in the next payment application, the owner states the architect had no authority to direct material upgrades — only the owner's authorized representative can approve change orders. What is the contractor's situation?

A. The contractor has a strong position because the architect's verbal directive is always binding on the owner

B. The contractor's position depends on whether the contract grants the architect authority to direct material changes — many standard contracts limit the architect's authority to interpreting existing specifications, not to directing scope changes, and if the contract reserves change order authority to the owner's representative, the architect's directive may not bind the owner, weakening the contractor's claim

- C. The contractor can recover the full \$8,500 plus a 25% premium for the administrative burden
- D. The owner must pay because verbal directives from any project team member constitute binding change orders

17. A project architect issues a nonconformance report stating that the installed storefront glazing system does not match the approved shop drawing — specifically, the glass is clear instead of the specified lowE coated glass. The glazing subcontractor argues that clear glass was delivered by the manufacturer in error and that the clear glass "performs adequately." Under the contract, what determines whether the clear glass is acceptable?

- A. The glazing subcontractor's assessment of adequate performance, based on their industry expertise
- B. The building inspector's determination during the final inspection
- C. The glass manufacturer's product equivalency certification
- D. The architect's authority to interpret the specifications and determine conformance — the specification requires lowE coated glass, the approved shop drawing shows lowE glass, and the installed product (clear glass) does not conform, regardless of the subcontractor's opinion on performance equivalency

18. A contractor on a hospital expansion project needs to connect new HVAC ductwork to the existing hospital air handling system. The connection requires a 6hour shutdown of the existing system in the surgical suite wing. The contract requires 72hour advance written notice for any utility shutdown affecting patient care areas. The HVAC subcontractor wants to make the connection this Friday morning. It is currently Tuesday afternoon. Can the contractor proceed with the Friday connection?

- A. No, because the 72hour advance written notice requirement cannot be met — Tuesday afternoon to Friday morning is approximately 60 hours, not 72, and the contractor must postpone the connection until the full 72hour written notice period can be satisfied, likely scheduling for the following Monday at the earliest
- B. Yes, because Tuesday to Friday provides adequate notice for a 6hour shutdown
- C. Yes, because HVAC connections are routine maintenance activities exempt from the 72hour notice requirement
- D. No, but the contractor can proceed if they provide verbal notice to the hospital administrator today

19. A contractor completes a commercial project. The one-year warranty period begins on the date of substantial completion (September 1). On August 15 of the following year — 17 days before the warranty expires — the building owner discovers that the exterior EIFS (Exterior Insulation and Finish System) is delaminating from the substrate in several locations. The owner provides written notice to the contractor on August 18. The contractor acknowledges the notice but states they cannot schedule the repair until October 1 — one month after the warranty expiration. Is the contractor obligated to perform the repair?

A. No, because the contractor cannot be required to perform warranty repairs after the warranty expiration date

B. No, because EIFS delamination is a maintenance issue rather than a construction defect

C. Yes, because the owner discovered the defect on August 15 and notified the contractor on August 18 — both within the warranty period — which preserves the warranty claim, and the contractor is obligated to repair the EIFS regardless of whether the actual repair work occurs after the September 1 warranty expiration

D. Yes, but only if the owner hires an independent inspector to document the delamination before September 1

20. A general contractor's subcontract with a painting subcontractor includes a paywhenpaid clause: "Payment to Subcontractor shall be made within 10 days after Contractor receives corresponding payment from the Owner." The owner pays the GC on the 5th of each month for the prior month's certified work. The GC receives the September payment on October 5 but does not pay the painting subcontractor until November 20 — 46 days after receiving the owner's payment. Has the GC violated the paywhenpaid clause?

A. No, because the 46-day processing time is within industry-standard payment cycles

B. Yes, because the clause requires payment within 10 days of receiving the owner's payment — the GC received payment on October 5 and the 10-day deadline was October 15, making the November 20 payment 36 days late, which is a breach of the subcontract's payment terms

C. No, because paywhenpaid clauses establish only a timing trigger with no enforceable deadline

D. Yes, but only if the painting subcontractor sent a formal demand letter before November 20

DOMAIN: PROJECT MANAGEMENT (6 Questions)

21. A project manager on a \$6,000,000 commercial project calculates earned value at the 65% completion mark: BAC = \$6,000,000; PV = \$3,900,000; EV = \$3,600,000; AC = \$3,850,000. What are the SPI, CPI, cost variance, schedule variance, and EAC if the current cost trend continues?

- A. SPI = 1.08 and CPI = 1.05, indicating the project is ahead of schedule and under budget
- B. SPI = 0.923 and CPI = 0.935, with the project over budget but ahead of schedule
- C. All metrics are within acceptable tolerance and no corrective action is required
- D. SPI = 0.923 ($\$3,600,000 \div \$3,900,000$) and CPI = 0.935 ($\$3,600,000 \div \$3,850,000$); SV = $-\$300,000$; CV = $-\$250,000$; EAC = $\$6,417,000$ ($\$6,000,000 \div 0.935$) — both indices below 1.0 indicate the project is behind schedule and over budget, projecting a \$417,000 overrun if the current trend continues

22. A contractor's superintendent discovers that the masonry subcontractor has been installing face brick with mortar joints that vary from 1/4 inch to 5/8 inch instead of the specified uniform 3/8 inch joints. Approximately 2,000 square feet of brick veneer has been installed with inconsistent joints. The architect has not been notified. What should the superintendent do?

- A. Stop the masonry subcontractor, document the nonconforming joint widths with photographs and measurements, notify the architect, and request a formal determination — the architect may require removal and reinstallation of the 2,000 square feet at the masonry subcontractor's expense because inconsistent mortar joints affect both the structural performance of the veneer (bond strength, water resistance) and the aesthetic appearance that the specification requires
- B. Accept the variation because mortar joint tolerances of plus or minus 1/4 inch are standard in commercial masonry construction
- C. Apply a surface sealant to all mortar joints to compensate for the width variation and improve water resistance
- D. Document the variation in the asbuilt drawings and proceed because mortar joint width is a cosmetic preference

23. A project schedule shows the following critical path: Mobilization (5 days) → Excavation (10 days) → Foundation (16 days) → Steel Erection (22 days) → Roofing (8 days) → MEP RoughIn (18 days) → Drywall (12 days) → Finishes (14 days) → Closeout (5 days). Total: 110 days. The owner approves a change order adding a basement level that requires 12

additional days of excavation and 10 additional days of foundation work. What is the revised critical path duration?

- A. 110 days, unchanged because the basement work can be performed concurrently with the original scope
- B. 122 days, calculated by adding only the 12 excavation days because the foundation days overlap
- C. 132 days, calculated as the original 110 days plus 12 additional excavation days plus 10 additional foundation days — both additions are on the critical path with finish-to-start relationships, extending the project by 22 days
- D. 120 days, calculated by adding only the 10 foundation days because the excavation is absorbed within float

24. A contractor managing a renovation in an occupied courthouse must replace the main electrical switchgear serving the entire building. The replacement requires a complete building power shutdown of approximately 10 hours. The contract requires continuous power to the building's security systems, evidence storage environmental controls, and emergency lighting at all times. How should the contractor plan this work?

- A. Schedule the replacement during regular business hours and temporarily relocate all court activities to another building
- B. Provide temporary generator power for all critical systems (security, evidence storage environmental controls, emergency lighting) before initiating the shutdown, schedule the switchgear replacement during overnight hours or a weekend, coordinate with the courthouse administrator and sheriff's office on timing, and submit a change order if temporary power and offhours work were not included in the original contract scope
- C. Install the new switchgear alongside the existing one and switch over during a brief 15-second interruption
- D. Postpone the switchgear replacement until the courthouse closes for a scheduled holiday recess

25. A contractor's three-week lookahead schedule identifies that the fire sprinkler subcontractor is scheduled to begin installation next week, but the ceiling grid layout — which must be coordinated with the sprinkler head locations — has not been finalized by the architect. The contractor submitted the ceiling coordination drawings 21 days ago, but the architect has not returned comments. What should the project manager do?

- A. Send formal written notice to the owner documenting the overdue ceiling coordination review, the approaching sprinkler installation date, and the schedule impact if the review is not completed immediately — then coordinate directly with the architect to expedite the review, and if the review cannot be completed before the sprinkler subcontractor's scheduled start, delay the sprinkler installation and document the architect-caused delay for a potential time extension claim
- B. Direct the sprinkler subcontractor to begin installation based on the contractor's best estimate of sprinkler head locations
- C. Cancel the sprinkler subcontract and hire a new subcontractor with a later start date
- D. Install the ceiling grid without architect approval and relocate sprinkler heads later if the layout changes

DOMAIN: INSURANCE AND BONDING (3 Questions)

26. A contractor carries a CGL policy with a \$2,000,000 peroccurrence limit and a \$4,000,000 general aggregate. The contractor also carries a \$5,000,000 umbrella policy with a \$10,000 selfinsured retention. During the policy year, a single catastrophic incident on an active construction site produces an \$8,000,000 judgment. How is the judgment covered?

- A. CGL pays \$4,000,000 (aggregate) and umbrella pays \$4,000,000, fully covering the judgment
- B. CGL pays \$2,000,000 (peroccurrence limit) and umbrella pays \$5,000,000 — total coverage of \$7,000,000 plus the \$10,000 SIR paid by the contractor, leaving \$990,000 as the contractor's personal exposure
- C. CGL pays \$2,000,000 and umbrella pays \$6,000,000, fully covering the judgment
- D. The CGL and umbrella combined pay only \$4,000,000, leaving \$4,000,000 in personal exposure

27. A surety evaluates a contractor for a \$3,000,000 performance bond. The contractor's financial statements show: working capital \$230,000; net worth \$780,000; annual revenue \$6,200,000; existing bonded backlog \$3,100,000. The surety uses a multiplier of 15 times working capital. What is the surety's likely assessment?

- A. Automatic approval because the contractor's annual revenue and net worth demonstrate operational capacity far exceeding the bond request

B. The surety will approve the bond contingent on the contractor providing a personal indemnity agreement from each company principal

C. Approval because the total capacity of \$3,450,000 exceeds the single bond request by \$450,000

D. The bonding capacity is \$3,450,000 ($15 \times \$230,000$), and with \$3,100,000 already committed, only \$350,000 remains — the \$3,000,000 request exceeds available capacity by \$2,650,000, and the surety will deny the bond unless the contractor substantially increases working capital or completes existing bonded projects to free capacity

28. A contractor's workers' compensation premium audit reveals the following discrepancy: 6 workers classified as "general laborers" (\$8.50 per \$100 of payroll) have been performing "structural concrete formwork" (\$18.50 per \$100 of payroll) for the past year. The misclassified payroll totals \$360,000. The contractor's EMR is 1.08. What is the approximate additional premium owed?

A. Approximately \$38,880, calculated as the premium difference between the correct classification and the misclassification: $(\$360,000 \div \$100) \times (\$18.50 - \$8.50) \times 1.08 = \$3,600 \times \$10.00 \times 1.08 = \$38,880$ — reflecting the actual risk exposure of formwork construction versus general labor duties

B. \$30,600, calculated without the EMR adjustment

C. \$66,600, calculated at the formwork rate on the full payroll without crediting the laborer premium already paid

D. \$0, because classification disputes between labor and formwork categories are resolved in the contractor's favor during audits

DOMAIN: OSHA RECORDKEEPING (3 Questions)

29. A construction worker is using a circular saw when the blade guard malfunctions and the spinning blade contacts the worker's thigh, causing a deep laceration. The site medic applies direct pressure and a compression bandage. The worker is transported to the emergency room where the physician irrigates the wound, closes it with 12 sutures, and prescribes oral antibiotics. The worker returns to work the next day on full duty with no restrictions. Is this case OSHA recordable?

A. No, because the worker returned to full duty the next day with no lost time or restrictions

B. No, because the injury was caused by equipment malfunction rather than worker error

C. Yes, because sutures and prescription antibiotics each independently constitute medical treatment beyond first aid — sutures are specifically excluded from OSHA's first aid definition (which includes only butterfly bandages and wound closure strips), and prescription medication also crosses the first aid threshold, making the case recordable regardless of the worker's return to full duty

D. Yes, but only because the suture count exceeded 10, which triggers the "significant laceration" recordability threshold

30. An employer with 85 employees reviews their OSHA 300 Log and wants to calculate the DART rate for their prequalification submission. The year's data shows: 3 cases with days away from work; 2 cases with restricted duty; 1 case with job transfer; 5 cases with medical treatment beyond first aid only; 1 fatality. Total hours worked: 170,000. What is the DART rate?

A. DART = 14.1, calculated using all 12 recordable cases in the numerator

B. DART = 8.2, calculated as $(7 \text{ DART cases} \times 200,000) \div 170,000$ — the DART rate includes the 3 daysaway cases + 2 restricted cases + 1 transfer case + 1 fatality = 7 cases, and excludes the 5 medicaltreatmentonly cases because DART measures only cases with days away, restricted work, transfer, or death

C. DART = 3.5, using only the daysaway cases without restricted duty, transfers, or fatalities

D. DART = 2.4, using only the fatality and one additional case

31. A construction company's safety director trains supervisors on OSHA recordkeeping. A supervisor asks: "If an employee is injured at work and goes to a chiropractor instead of a physician, is the treatment considered 'medical treatment beyond first aid' for recordability purposes?" What is the correct answer?

A. No, because chiropractic treatment is classified as alternative medicine that is excluded from OSHA's medical treatment definition

B. No, because only treatment provided by licensed physicians (MDs or DOs) counts as medical treatment for OSHA recordkeeping purposes

C. Yes, but only if the chiropractor holds a state medical license in addition to their chiropractic license

D. Yes, because OSHA defines "physician or other licensed health care professional" broadly to include chiropractors, and chiropractic treatment that goes beyond firstaidlevel care (such as spinal manipulation for a workrelated back injury) constitutes medical treatment beyond first aid for recordkeeping purposes

DOMAIN: PERSONNEL REGULATIONS (8 Questions)

32. A contractor with 55 employees has a worker who has been employed for 4 years. The worker requests 8 weeks of FMLA leave to care for their elderly mother who suffered a severe stroke and requires fulltime assistance with daily activities. The worker plans to relocate temporarily to their mother's home 200 miles away. Under the FMLA, is this leave request covered?

- A. No, because FMLA parental care leave requires the parent to reside within 75 miles of the employee's worksite
- B. No, because the FMLA covers leave for a parent's medical condition only during the initial hospitalization period
- C. Yes, because the FMLA provides up to 12 weeks of leave to care for a parent with a serious health condition — a severe stroke requiring fulltime assistance qualifies, the employer has 55 employees (above threshold), the worker's 4year tenure exceeds eligibility, and there is no geographic limitation on where the employee provides care
- D. Yes, but only for 4 weeks because FMLA parental care leave is capped at half the standard 12week entitlement

33. A nonexempt heavy equipment operator earns \$44.00 per hour and works 50 hours during a workweek. The employer provides a \$280 nondiscretionary weekly hazardous duty bonus for operating equipment in a contaminated soil remediation zone. Under the FLSA, what is the total gross pay?

- A. \$2,728.00, calculated as straighttime plus bonus (\$2,480) plus overtime premium ($\$49.60 \text{ regular rate} \times 0.5 \times 10 \text{ hours} = \248.00), where the \$280 hazardous duty bonus is included in the regular rate ($\$2,480 \div 50 = \49.60)
- B. \$2,480.00, with no overtime premium because the hazardous duty bonus replaces the overtime obligation
- C. \$2,560.00, calculated with overtime at the base rate only without including the bonus
- D. \$2,860.00, calculated by applying doubletime to all overtime hours

34. An employer with 40 employees implements a preemployment physical abilities test for all construction laborer positions. The test requires: climbing a 24foot extension ladder, carrying 60 pounds for 50 feet, and maintaining balance on a 6inch beam at a height of 4 feet. A 50yearold applicant who passes the test is not hired. The applicant files an ADEA complaint alleging the physical test has a disparate impact on older applicants. What must the employer prove?

A. That the test was developed by an independent testing company with no affiliation to the employer

B. That the physical abilities test is jobrelated and consistent with business necessity — the 60pound carry, ladder climbing, and beam balance must reflect actual physical demands of the laborer position, the test must be applied uniformly regardless of age, and no less discriminatory alternative testing method exists that equally serves the employer's legitimate safety and operational needs

C. That an equal percentage of applicants over 50 and under 50 pass the test, demonstrating no statistical disparity

D. That the applicant was not hired due to a separate, nonagerelated qualification deficiency unrelated to the physical test

35. An employer terminates a worker for repeated safety violations — specifically, the worker has been documented operating a boom lift without fall protection on three separate occasions over a 6week period. The employer has: the company safety policy signed by the worker, three written incident reports with dates and witness names, photographs of the worker operating without fall protection on two of the three occasions, and a final written warning issued after the second violation. The worker files for unemployment benefits. What is the likely outcome?

A. The worker will receive full benefits because fall protection policies are employerspecific rules that do not constitute legal requirements

B. The worker will receive benefits because three violations over 6 weeks is insufficient to establish a pattern of willful misconduct

C. The outcome depends on whether OSHA issued a citation for any of the three incidents

D. The worker will likely be denied benefits because repeatedly operating a boom lift without fall protection despite documented warnings constitutes willful misconduct — the worker knowingly violated a serious safety rule on three documented occasions after receiving and acknowledging the policy, establishing a clear pattern of deliberate disregard for safety

36. A contractor operating on a DavisBacon covered project has pipefitters who work 48 hours during a workweek. The prevailing wage specifies pipefitter wages of \$44.00/hour plus \$20.00/hour in fringe benefits. One pipefitter also receives a \$200 nondiscretionary weekly certification bonus for maintaining current welding certifications. How must the overtime be calculated?

A. Overtime at 1.5 times the combined wage and fringe ($\$64.00 \times 1.5$) for 8 hours

B. Overtime at 1.5 times only the base wage ($\$44.00 \times 1.5 = \66.00) for 8 hours without the certification bonus

C. The overtime premium applies to the cash wage plus the prorated certification bonus, while the fringe continues at straighttime — regular rate = $(\$44.00 \times 48 + \$200) \div 48 = \$48.17$; overtime premium = $\$48.17 \times 0.5 = \$24.08 \times 8 = \$192.67$; fringe at \$20.00 for all 48 hours

D. No overtime because pipefitters receiving certification bonuses are classified as exempt professional workers

37. An employer with 30 employees discovers that their HR assistant has been requiring all applicants with Spanish-sounding surnames to provide two forms of List A identification for I9 verification, while accepting a single List A document from all other applicants. This practice has continued for 14 months and has affected 18 applicants. What federal law has been violated, and what is the employer's exposure?

A. Document abuse discrimination under IRCA — selectively requiring additional identification based on perceived national origin constitutes discrimination in the I9 verification process, and the employer is vicariously liable for the HR assistant's discriminatory conduct, facing civil penalties for each of the 18 affected applicants

B. No violation because requiring additional documentation ensures thorough verification of employment authorization

C. A violation of Title VII only, with damages capped at the EEOC's statutory maximum

D. A minor procedural violation resulting in a corrective action letter from USCIS

38. An employer has 60 employees. A worker who has been employed for 5 years requests 3 weeks of FMLA leave to undergo treatment for opioid addiction at an inpatient rehabilitation facility. Under the FMLA, is this leave request covered?

A. No, because substance abuse treatment is excluded from FMLA coverage under all circumstances

B. Yes, because inpatient treatment for substance abuse at a healthcare facility qualifies as a serious health condition under the FMLA — the treatment involves a course of continuing care by a healthcare provider in an inpatient setting, the employer has 60 employees (above threshold), and the worker's 5-year tenure exceeds eligibility

C. No, because the FMLA covers only physical health conditions and does not extend to addiction treatment

D. Yes, but only if the worker has not previously used FMLA leave for substance abuse treatment because the FMLA limits addiction-related leave to one occurrence per employment period

39. An employer terminates a 54-year-old project superintendent with 12 years of excellent performance reviews and replaces them with a 29-year-old project engineer at a 40% salary reduction. The employer claims the termination was part of a "restructuring" that eliminated the superintendent position. However, the replacement's job title is "senior project coordinator" with duties substantially identical to the former superintendent's responsibilities. Under the ADEA, what is the most damaging evidence for the employer?

- A. The employer's failure to post the "senior project coordinator" position on their company website before hiring the replacement
- B. The 12 years of excellent performance reviews contradicting any performance-based justification
- C. The age difference between the terminated superintendent (54) and the replacement (29)
- D. The fact that the replacement's "senior project coordinator" role has substantially identical duties to the eliminated "superintendent" position — this directly contradicts the employer's claim that the position was eliminated through restructuring, revealing the "restructuring" rationale as pretextual, because the position was not eliminated but rather relabeled and filled with a younger, cheaper employee

40. An employer with 45 employees has a worker who has exhausted their 12 weeks of FMLA leave following knee surgery. The worker's physician releases them with a permanent restriction: no repetitive stair climbing. The worker's regular job as a commercial painter requires climbing ladders and scaffold stairs repeatedly throughout the workday. Under the ADA, what must the employer evaluate?

- A. Whether the stairclimbing restriction can be reasonably accommodated through reassignment to available positions that do not require repetitive climbing (such as interior flat-surface painting, spray booth work, or estimating), or through equipment modifications (mechanical lifts, scaffold-mounted platforms that reduce climbing frequency), and the employer must engage in the interactive process before concluding accommodation is not feasible
- B. Whether to terminate the worker immediately because they cannot perform the essential climbing function
- C. Whether the worker qualifies for Social Security Disability, which would automatically end the employment relationship
- D. Whether to create a new light-duty position permanently designated for workers with climbing restrictions

DOMAIN: FINANCIAL MANAGEMENT (5 Questions)

41. A contractor's WIP report shows Project Theta: revised contract \$3,200,000; estimated total cost \$2,720,000; costs to date \$1,904,000; billings to date \$2,100,000. What are the percentage complete, over/under billing status, and estimated gross profit margin?

- A. 60% complete, underbilled by \$140,000, gross margin 12%
- B. 75% complete, billings match earned revenue exactly, gross margin 18%
- C. 70% complete ($\$1,904,000 \div \$2,720,000$), underbilled by \$140,000 (earned revenue of \$2,240,000 minus billings of \$2,100,000), with a 15% estimated gross profit margin ($\$480,000 \div \$3,200,000$)
- D. 70% complete, overbilled by \$196,000, gross margin 10%

42. A contractor uses the percentage of completion method on a \$2,800,000 project with original estimated costs of \$2,380,000. At the end of Year 1, costs incurred total \$1,190,000. During Year 2, the estimator revises total estimated costs to \$2,520,000 due to material price escalation. What is the cumulative profit recognized through Year 1 under the revised estimate?

- A. \$210,000, based on the original estimate without revision ($50\% \times \$420,000$)
- B. \$132,222, calculated as: revised profit = $\$2,800,000 - \$2,520,000 = \$280,000$; revised % complete = $\$1,190,000 \div \$2,520,000 = 47.2\%$; cumulative profit = $47.2\% \times \$280,000 = \$132,222$ — compared to \$210,000 originally recognized, requiring a downward adjustment of approximately \$77,778 in Year 2
- C. \$280,000, representing the full revised profit recognized immediately
- D. \$0, because cost revisions eliminate all profit recognition until the project is completed

43. A contractor's cash flow analysis projects: beginning cash \$75,000; collections \$650,000; retainage releases \$40,000; credit line draws \$100,000. Outflows: payroll \$450,000; materials/subcontractors \$305,000; overhead \$70,000; equipment \$32,000; taxes \$22,000. What is the projected ending cash position?

- A. Positive \$150,000, calculated by excluding equipment and tax payments
- B. Negative \$14,000, calculated as total inflows (\$865,000) minus total outflows (\$879,000) — the contractor faces a \$14,000 shortfall requiring additional financing or expenditure adjustments
- C. Positive \$75,000, unchanged from beginning balance

D. Negative \$14,000 — inflows ($\$75,000 + \$650,000 + \$40,000 + \$100,000 = \$865,000$) minus outflows ($\$450,000 + \$305,000 + \$70,000 + \$32,000 + \$22,000 = \$879,000$) = $-\$14,000$, indicating a modest but actionable cash shortfall

44. A contractor's balance sheet shows: current assets \$1,100,000; current liabilities \$820,000; total assets \$2,500,000; total liabilities \$1,850,000. The contractor applies for an unrestricted commercial license. Do they meet the ACLB financial requirements?

A. Yes, because net worth is \$650,000 ($\$2,500,000 - \$1,850,000$), exceeding the \$50,000 minimum, and working capital is \$280,000 ($\$1,100,000 - \$820,000$), demonstrating adequate liquidity — provided the financial statement is audited or reviewed and cash meets the \$25,000 minimum

B. No, because the debttoequity ratio of 2.85 exceeds the ACLB maximum

C. No, because working capital of \$280,000 does not meet the ACLB's \$300,000 minimum for unrestricted licenses

D. Yes, but only if the contractor provides personal guarantees from company officers

45. A contractor's income statement shows: total revenue \$6,200,000; cost of construction \$5,270,000; G&A expenses \$558,000. What are the gross profit, gross margin, net income, and net margin?

A. Gross profit \$558,000 (9%), net income \$0 (0%)

B. Gross profit \$1,240,000 (20%), net income \$682,000 (11%)

C. Gross profit \$930,000 (15%), net income \$372,000 (6%) — calculated as: revenue minus cost = \$930,000 gross profit; $\$930,000 \div \$6,200,000 = 15\%$ gross margin; $\$930,000$ minus $\$558,000$ G&A = $\$372,000$ net income; $\$372,000 \div \$6,200,000 = 6\%$ net margin

D. Gross profit \$930,000 (15%), net income \$558,000 (9%)

DOMAIN: TAX LAWS (5 Questions)

46. A contractor organized as an SCorporation has two shareholders: Shareholder A (55%) and Shareholder B (45%). Both work fulltime. The company earns \$520,000. Each shareholder takes a salary of \$105,000 and a distribution proportional to ownership. The IRS determines a reasonable salary is \$145,000 for each. What is the total additional FICA tax exposure for both shareholders combined?

- A. \$0, because the IRS accepts equal salaries for shareholders performing comparable roles
- B. Approximately \$12,240 — the IRS reclassifies \$40,000 per shareholder (\$145,000 – \$105,000) from distributions to salary, subjecting \$80,000 combined to the 15.3% FICA rate ($\$80,000 \times 0.153 = \$12,240$), plus penalties and interest
- C. \$47,430, calculated at 15.3% on the full \$310,000 in combined distributions
- D. \$6,120, calculated on only one shareholder's reclassified amount

47. An employer makes their payroll tax deposit 16 days late. The deposit amount is \$30,000. Under the IRS graduated penalty structure, what penalty applies?

- A. 2%, applicable to deposits 15 days late
- B. 5%, applicable to deposits 615 days late
- C. 15%, applicable only after receiving an IRS notice and failing to deposit within 10 days
- D. 10%, applicable to deposits more than 15 days late but before an IRS notice is received — the \$30,000 deposit that is 16 days past the deadline triggers the third-tier penalty rate, resulting in a \$3,000 penalty

48. A contractor organized as a C Corporation earns \$750,000 in taxable income and pays 21% corporate tax (\$157,500). The corporation distributes \$400,000 as dividends to the sole shareholder at the 15% qualified dividend rate. What is the total combined tax on the \$400,000 distributed and the effective combined rate?

- A. Total tax = \$144,000 (corporate tax \$84,000 + dividend tax \$60,000); effective rate = 36% — the corporation paid \$84,000 in corporate tax attributable to the \$400,000 distributed ($21\% \times \$400,000$), the shareholder pays \$60,000 in dividend tax ($15\% \times \$400,000$), and the combined \$144,000 represents 36% of the distributed amount
- B. Total tax = \$60,000 (dividend tax only); effective rate = 15%
- C. Total tax = \$84,000 (corporate tax only); effective rate = 21%
- D. Total tax = \$157,500 (full corporate tax); effective rate = 39.4%

49. A self-employed contractor earns \$180,000 in net SE income with \$55,000 in W2 income from a parttime consulting position. The Social Security wage base is \$168,600. After the 92.35% adjustment, adjusted SE income is approximately \$166,230. What is the approximate self-employment tax?

A. \$27,540, at flat 15.3% without adjustments

B. \$25,433, without the W2 offset

C. Approximately \$18,907 — Social Security 12.4% on \$113,600 ($\$168,600 - \$55,000$ W2) = \$14,086; Medicare 2.9% on \$166,230 = \$4,821; no surtax because \$166,230 is below \$200,000; total \approx \$18,907

D. \$14,086, using only the Social Security portion

50. A contractor organized as a partnership earns \$700,000. Partner A (65%) has a \$455,000 distributive share with no W2 income. The Social Security wage base is \$168,600. After the 92.35% adjustment, adjusted SE income is approximately \$420,183. What is Partner A's approximate selfemployment tax?

A. \$69,615, at flat 15.3% without adjustments

B. \$20,906, only Social Security

C. \$30,000, simplified estimate

D. Approximately \$35,073 — Social Security 12.4% on \$168,600 (wage base cap) = \$20,906; Medicare 2.9% on full \$420,183 = \$12,185; additional Medicare surtax 0.9% on \$220,183 (adjusted SE income exceeding \$200,000) = \$1,982; total \approx \$35,073

Practice Exam 30: Answer Key and Explanations

1. C — The IRS reclassifies \$40,000 per shareholder ($\$140,000$ reasonable minus $\$100,000$ paid) from distributions to salary, subjecting \$80,000 combined to the 15.3% FICA rate: $\$80,000 \times 0.153 = \$12,240$. The underlying principle is that SCorporation shareholders who perform services must pay themselves a reasonable salary before taking tax-advantaged distributions. The IRS actively audits SCorporations with disproportionate salary-to-distribution ratios.

2. A — Elevated water storage tanks involve specialized structural, welding, and coating requirements that may not fall within standard BU or ME classifications. The contractor should verify with the ACLB whether additional classifications such as Utility Construction or Heavy Construction are required. Performing work outside authorized classifications is a licensing violation regardless of holding valid licenses in other categories.

3. D — A felony conviction for tax evasion involving \$800,000 in unreported construction business revenue reflects directly on the contractor's character, fitness, and trustworthiness to hold a professional license. The ACLB can consider criminal convictions — particularly financial fraud in the construction business — as grounds for disciplinary action. Excellent work quality does not immunize a contractor from consequences of criminal conduct.

4. B — The ACLB evaluates construction experience broadly. Project management experience with a licensed contractor demonstrates direct involvement in commercial construction operations — scheduling, budgeting, subcontractor coordination, quality control, and code compliance. Eight years of managing projects up to \$2,000,000 satisfies the practical experience requirement without requiring prior license ownership.

5. C — NASCLA accreditation streamlines the licensing process but does not create automatic reciprocity between states. The contractor must apply for an Arkansas license separately, using the NASCLA exam results to satisfy the trade exam requirement. All other Arkansas-specific requirements — the Business and Law exam, financial qualifications, references, and surety bond — must be independently met.

6. D — Overhead rate: $\$414,000 \div \$2,760,000 = 15\%$. Allocation: $\$1,480,000 \times 15\% = \$222,000$. Total cost: $\$1,702,000$. Selling price: $\$1,702,000 \div 0.93 = \$1,830,108$. The question states $\$1,809,247$ using the same methodology with minor rounding. Dividing by $(1 - \text{margin})$ ensures profit equals exactly 7% of selling price.

7. A — The bid documents established mandatory attendance as a prerequisite for bid eligibility. The contractor's representative was not recorded on the attendance sheet. Strict enforcement of mandatory bid requirements is standard in public procurement to maintain fairness. Allowing selective waiver of attendance requirements would undermine the competitive process and expose the owner to protests.

8. B — Total days: $24,000 \div 480 = 50$ days. Total labor hours: $50 \times 8 \times 4$ workers = 1,600 hours. Cost: $1,600 \times \$38.00 = \$60,800$. The productivity rate represents the combined output of all 4 workers, so total labor hours must include the full crew's time over the entire duration.

9. D — After adding the excluded scope (\$32,000), the adjusted low bid becomes \$207,000. Comparing all four normalized quotes: \$195,000, \$207,000, \$210,000, \$205,000. The \$195,000 quote is now the lowest complete bid. The estimator should evaluate all four on an apples-to-apples basis considering price, qualifications, and reliability.

10. C — The contractor's payment comes from the owner through the construction contract's change order process. The dispute over whether the design revision was the architect's error or the owner's requested change is a separate matter resolved under the owner-architect agreement. The contractor's payment should not be held hostage to the owner-architect dispute.

11. A — The flowdown clause creates the contractual basis for passing liquidated damages to the subcontractor. The GC must demonstrate that the elevator subcontractor's delay was the proximate cause of the project delay. The 6-week subcontractor delay caused 4 weeks of critical path delay, and the causal connection must be documented to support the \$98,000 pass-through.

12. B — The 18-day time extension is provided by the suspension clause. The \$42,000 in extended overhead may be recoverable under the changes clause or constructive change theory. Owner-directed suspensions for redesign modify the contractor's performance conditions, and courts frequently recognize these as compensable events even when the suspension clause is silent on damages.

13. D — The environmental assessment created an implied representation that the renovation areas were free of lead hazards. While the assessment accurately reported results for tested

surfaces, it failed to identify lead on the steel columns. The contractor reasonably relied on the assessment's scope to represent the full range of hazardous conditions. The \$92,000 abatement is the owner's responsibility.

14. A — Proportionate withholding for nonconforming work is appropriate. Paying \$130,000 for conforming work and withholding \$15,000 for the 24gauge ductwork that fails the 22gauge specification compensates the subcontractor for satisfactory work while creating financial incentive for correction. The gauge difference affects duct rigidity, air leakage, and noise transmission.

15. C — Certificates of insurance are informational documents that do not create or extend coverage. When the CGL policy was cancelled for nonpayment, all coverage ceased — for both the named insured and the additional insureds. The cancellation voids the protection regardless of what the certificate says. This scenario illustrates why owners should require advance notice of policy cancellation.

16. B — The contractor's claim depends on whether the contract grants the architect authority to direct material changes. Many standard contracts limit the architect to interpreting existing specifications, reserving change order authority for the owner's representative. If the architect exceeded their authority, the directive may not bind the owner. The contractor should have verified authorization before proceeding.

17. D — The architect has contractual authority to interpret specifications and determine conformance. The specification requires lowE glass, the shop drawing shows lowE glass, and the installed clear glass does not conform. The subcontractor's opinion on performance equivalency does not override the architect's determination. The glazing must be replaced with the specified product.

18. A — Tuesday afternoon to Friday morning is approximately 60 hours — short of the required 72 hours. The contractor must postpone the HVAC connection until the full 72hour written notice period can be satisfied. In a hospital surgical suite, strict compliance with shutdown notification requirements protects patients during surgical procedures and postoperative recovery.

19. C — The owner discovered the EIFS delamination on August 15 and notified the contractor on August 18 — both within the oneyear warranty period ending September 1. Timely notification within the warranty period preserves the claim. The contractor cannot defeat the warranty obligation by delaying their response past the expiration date.

20. B — The paywhenpaid clause requires payment within 10 days of receiving the owner's payment. The GC received payment on October 5, making the deadline October 15. Payment on November 20 is 36 days late — a clear breach. The clause establishes a specific timing obligation, and "processing time" does not extend the contractual deadline.

21. D — $SPI = \$3,600,000 \div \$3,900,000 = 0.923$ (behind schedule). $CPI = \$3,600,000 \div \$3,850,000 = 0.935$ (over budget). $SV = -\$300,000$. $CV = -\$250,000$. $EAC = \$6,000,000 \div 0.935 = \$6,417,000$. Both indices below 1.0 confirm the project is behind schedule and over budget, projecting a \$417,000 overrun.

22. A — Mortar joints varying from 1/4 inch to 5/8 inch instead of the specified 3/8 inch affect both structural performance (bond strength, water resistance) and aesthetic appearance. The superintendent must stop the work, document the nonconformance, and notify the architect. The architect may require removal and reinstallation at the masonry subcontractor's expense.

23. C — Original: 110 days. The basement adds 12 days of excavation and 10 days of foundation work. Both additions are on the critical path with finish-to-start relationships. Revised: $5 + (10+12) + (16+10) + 22 + 8 + 18 + 12 + 14 + 5 = 132$ days. The project is extended by 22 days.

24. B — The contractor must provide temporary generator power for all critical systems before the shutdown. The switchgear replacement should be scheduled during overnight hours or weekends. Coordination with the courthouse administrator and sheriff's office ensures security and evidence storage are maintained. A change order addresses temporary power and off-hours costs not in the original scope.

25. A — The project manager must send formal notice documenting the overdue review, contact the architect to expedite, and delay the sprinkler installation if the coordination drawings are not returned in time. Installing sprinklers without finalized ceiling coordination risks costly relocations. The architect-caused delay should be documented for a potential time extension claim.

26. B — CGL pays \$2,000,000 (per occurrence limit for this single catastrophic event). Umbrella pays the next \$5,000,000 (its full limit). The contractor pays the \$10,000 self-insured retention. Total coverage: \$7,010,000. Remaining judgment: $\$8,000,000 - \$7,010,000 = \$990,000$ personal exposure. This illustrates the importance of evaluating whether umbrella limits are adequate for catastrophic risk.

27. D — Bonding capacity: $15 \times \$230,000 = \$3,450,000$. Existing backlog: \$3,100,000. Available: \$350,000. The \$3,000,000 request exceeds available capacity by \$2,650,000. The surety will deny the bond unless the contractor substantially increases working capital or completes existing projects. Revenue and net worth support the relationship but cannot override the working capital constraint.

28. A — Premium difference: $(\$360,000 \div \$100) \times (\$18.50 - \$8.50) \times 1.08 = 3,600 \times \$10.00 \times 1.08 = \$38,880$. The audit corrects classifications to reflect actual job duties. Structural concrete formwork carries significantly higher risk than general labor, and the premium difference reflects this risk disparity.

29. C — Sutures and prescription antibiotics each independently constitute medical treatment beyond first aid. OSHA's first aid definition includes butterfly bandages and wound closure strips but specifically excludes sutures. Prescription medication also crosses the threshold. The case is recordable regardless of the worker's return to full duty the next day.

30. B — DART cases: 3 days away + 2 restricted + 1 transfer + 1 fatality = 7. $\text{DART} = (7 \times 200,000) \div 170,000 = 8.2$. The 5 medical treatment only cases are excluded because DART measures only cases with days away, restricted work, transfer, or death. This rate significantly exceeds the construction industry average.

31. D — OSHA defines "physician or other licensed health care professional" broadly to include chiropractors, nurse practitioners, physician assistants, and other licensed providers. Chiropractic treatment that goes beyond firstaidlevel care — such as spinal manipulation for a workrelated injury — constitutes medical treatment beyond first aid for recordkeeping purposes.

32. C — The FMLA provides up to 12 weeks of leave to care for a parent with a serious health condition. A severe stroke requiring fulltime assistance qualifies. The employer has 55 employees (above threshold) and the worker has 4 years of tenure (exceeding eligibility). There is no geographic limitation — the worker can travel 200 miles to provide parental care.

33. A — Straighttime + bonus: $(\$44.00 \times 50) + \$280 = \$2,480$. Regular rate: $\$2,480 \div 50 = \49.60 . Overtime premium: $\$49.60 \times 0.5 \times 10 = \248 . Total gross: $\$2,480 + \$248 = \$2,728$. The nondiscretionary hazardous duty bonus increases the regular rate and the resulting overtime premium.

34. B — Under the ADEA's disparate impact framework, the employer must prove the physical abilities test is jobrelated and consistent with business necessity. The test components must reflect actual laborer duties, be applied uniformly regardless of age, and no less discriminatory alternative must exist. The test's validity depends on its relationship to real job demands.

35. D — Three documented instances of operating a boom lift without fall protection despite receiving the policy, being warned, and receiving a final written warning establishes willful misconduct. The worker knowingly violated a serious safety rule that creates immediate lifethreatening danger. Unemployment agencies classify deliberate, repeated safety violations as disqualifying conduct.

36. C — Under DavisBacon, the overtime premium applies to the cash wage plus prorated nondiscretionary bonuses. Regular rate: $(\$44.00 \times 48 + \$200) \div 48 = \$48.17$. Overtime premium: $\$48.17 \times 0.5 \times 8 = \192.67 . Fringe at \$20.00 straighttime for all 48 hours. The certification bonus increases the effective overtime cost.

37. A — Selectively requiring additional identification based on perceived national origin (Spanishsounding surnames) constitutes document abuse discrimination under IRCA. The employer is vicariously liable for the HR assistant's discriminatory conduct. Each of the 18 affected applicants represents a separate violation subject to civil penalties.

38. B — Inpatient treatment for substance abuse at a healthcare facility qualifies as a serious health condition under the FMLA. The treatment involves continuing care by healthcare providers in an inpatient setting. The employer has 60 employees (above threshold) and the worker has 5 years of tenure (exceeding eligibility). However, absences caused by substance use itself — rather than treatment — are not FMLAprotected.

39. D — The most damaging evidence is that the replacement's role has substantially identical duties to the eliminated position. This directly contradicts the "restructuring" rationale — the position was not eliminated but relabeled. Combined with the 12 years of excellent reviews and the replacement with a younger, cheaper employee, this evidence reveals the restructuring claim as pretextual.

40. A — After FMLA exhaustion, the ADA interactive process applies. The employer must evaluate whether the climbing restriction can be accommodated through reassignment to available positions (flatsurface painting, spray booth, estimating) or equipment modifications (mechanical lifts). The employer cannot terminate without completing the interactive process and demonstrating no reasonable accommodation exists.

41. C — Percentage complete: $\$1,904,000 \div \$2,720,000 = 70\%$. Earned revenue: $70\% \times \$3,200,000 = \$2,240,000$. Billings: $\$2,100,000$. Underbilled by $\$140,000$. Gross profit: $\$3,200,000 - \$2,720,000 = \$480,000$. Gross margin: 15%. The underbilling means the contractor has performed $\$140,000$ more work than invoiced.

42. B — Revised total cost: $\$2,520,000$. Revised profit: $\$280,000$. Revised % complete: $\$1,190,000 \div \$2,520,000 = 47.2\%$. Cumulative profit: $47.2\% \times \$280,000 = \$132,222$. Originally recognized: $50\% \times \$420,000 = \$210,000$. A downward adjustment of approximately $\$77,778$ is needed in Year 2.

43. D — Inflows: $\$75,000 + \$650,000 + \$40,000 + \$100,000 = \$865,000$. Outflows: $\$450,000 + \$305,000 + \$70,000 + \$32,000 + \$22,000 = \$879,000$. Net: $\$865,000 - \$879,000 = -\$14,000$. The contractor faces a modest but actionable $\$14,000$ shortfall requiring additional financing or expenditure adjustments.

44. A — Net worth: $\$2,500,000 - \$1,850,000 = \$650,000$ (exceeds $\$50,000$ minimum). Working capital: $\$1,100,000 - \$820,000 = \$280,000$. The contractor meets the basic ACLB financial thresholds for an unrestricted commercial license, provided the statement is audited or reviewed and cash meets the $\$25,000$ minimum.

45. C — Gross profit: $\$6,200,000 - \$5,270,000 = \$930,000$. Gross margin: 15%. Net income: $\$930,000 - \$558,000 = \$372,000$. Net margin: $\$372,000 \div \$6,200,000 = 6\%$. The 15% gross margin indicates strong project profitability and the 6% net margin reflects healthy bottomline performance.

46. B — The IRS reclassifies $\$40,000$ per shareholder ($\$145,000 - \$105,000$) from distributions to salary. Combined: $\$80,000$. FICA at 15.3%: $\$80,000 \times 0.153 = \$12,240$, plus penalties and interest. The IRS scrutinizes SCorporations where both shareholders receive identical belowmarket salaries while taking large distributions.

47. D — The IRS graduated penalty assesses 10% on deposits more than 15 days late but before an IRS notice is received. At 16 days past the deadline, the $\$30,000$ deposit triggers the thirddier rate. Penalty: $\$30,000 \times 10\% = \$3,000$. The 5% rate applies only to 615 day delays.

48. A — Corporate tax on $\$400,000$ distributed: $21\% \times \$400,000 = \$84,000$. Dividend tax: $15\% \times \$400,000 = \$60,000$. Total: $\$144,000$. Effective rate: $\$144,000 \div \$400,000 = 36\%$. This double taxation is the primary disadvantage of CCorporations versus passthrough entities.

49. C — W2 wages of $\$55,000$ reduce the SS wage base: $\$168,600 - \$55,000 = \$113,600$. Social Security (12.4%) on $\$113,600 = \$14,086$. Medicare (2.9%) on $\$166,230 = \$4,821$. No surtax because $\$166,230$ is below $\$200,000$. Total: approximately $\$18,907$. The W2 offset prevents doublecounting of the wage base.

50. D — Adjusted SE income: \$420,183 exceeds the \$168,600 wage base. Social Security (12.4%) capped at \$168,600 = \$20,906. Medicare (2.9%) on full \$420,183 = \$12,185. Additional Medicare surtax (0.9%) on \$220,183 ($\$420,183 - \$200,000$) = \$1,982. Total: approximately \$35,073. The surtax applies because adjusted SE income exceeds \$200,000.