

PRACTICE EXAM 24: 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 one shareholder who is also the company's sole employee. The company earns \$320,000 in net income. The shareholder pays themselves a salary of \$85,000 and takes the remaining \$235,000 as a shareholder distribution. The contractor's CPA warns that the IRS may challenge the salary as unreasonably low. If the IRS determines a reasonable salary is \$145,000, what is the approximate additional FICA tax exposure on the reclassified amount?

A. Approximately \$9,180 — the IRS would reclassify \$60,000 of distributions as salary (\$145,000 reasonable minus \$85,000 paid), and the combined employer and employee FICA rate of 15.3% on the \$60,000 yields approximately \$9,180, plus penalties and interest on the underreported payroll taxes

B. \$48,960, calculated at 15.3% on the entire \$320,000 of corporate income

C. \$0, because SCorporation shareholders have unlimited discretion over their salary distribution split

D. \$35,955, calculated at 15.3% on the full \$235,000 distribution amount

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 serve as general contractor on a wastewater treatment plant project that includes heavy civil construction, process piping, and electrical controls. The project is valued at \$4,800,000. Can the contractor perform this work?

A. Yes, because the unrestricted license authorizes all commercial construction work without classification limitations

B. Yes, because the ME classification covers all process piping and the BU classification covers the structural components

C. The contractor should verify whether their existing classifications cover wastewater treatment plant construction — this type of project may require additional classifications such as Heavy Construction (HE) or Utility Construction (UT), and performing work outside authorized classifications is a licensing violation regardless of holding a valid license in other classifications

D. No, because wastewater treatment plants are exclusively federal jurisdiction projects that require special federal contractor licensing

3. A licensed contractor in Arkansas fails to pay their annual license renewal fee by the deadline. The ACLB sends a notice that the license has expired. The contractor pays the renewal fee 60 days after the deadline and requests reinstatement. During the 60day lapse, the contractor continued working on three active commercial projects totaling \$1,400,000 in value. What consequences does the contractor face?

A. No consequences because the 60day lapse is within the ACLB's standard grace period for late renewals

B. The contractor faces potential disciplinary action for operating without a valid license during the 60day lapse — all work performed during that period constitutes unlicensed activity regardless of the contractor's prior licensing history, and the ACLB may impose sanctions ranging from fines to suspension in addition to requiring back payment of the renewal fee

C. Only a \$50 late fee assessed by the ACLB with no further consequences for the work performed during the lapse

D. The contractor faces consequences only for projects started during the lapse, not for projects that were already in progress

4. A contractor's qualifying individual (QI) retires and the contractor immediately hires a replacement who meets all experience and examination requirements. The contractor submits the QI change notification to the ACLB on the same day the original QI retires. The ACLB processes the change within 10 business days. During those 10 processing days, does the contractor's license remain valid?

A. No, the license is automatically suspended from the moment the original QI departs until the replacement QI is formally approved by the ACLB

B. No, but the contractor can obtain a temporary 30day permit from the ACLB to bridge the gap between QI appointments

C. Yes, but only if the contractor does not bid on any new projects during the processing period

D. Yes, because the contractor promptly notified the ACLB and designated a qualified replacement — the license typically remains valid during the administrative processing period when the contractor has acted in good faith to maintain compliance by immediately identifying and submitting a qualified replacement QI

5. A homeowner hires an unlicensed individual to perform a \$55,000 kitchen and bathroom renovation on their singlefamily home. Midway through the project, the homeowner discovers the individual is unlicensed. The homeowner demands a full refund of the \$30,000 already paid. The unlicensed individual argues that the work performed to date is high quality and worth the \$30,000. Under Arkansas law, what is the unlicensed individual's legal position regarding collecting payment?

A. The unlicensed individual can collect the full \$30,000 because the quality of work is the only factor courts consider in construction payment disputes

B. The unlicensed individual can collect payment for the reasonable value of work performed because Arkansas follows the quantum meruit doctrine for all construction disputes

C. The unlicensed individual may be unable to enforce the contract or collect any payment — Arkansas courts may treat contracts entered into by individuals performing licensable work without a license as unenforceable, denying the unlicensed party any legal remedy regardless of the quality of work performed

D. The unlicensed individual can collect 50% of the amount paid as a compromise between the contract price and the licensing violation

DOMAIN: ESTIMATING AND BIDDING (4 Questions)

6. A contractor estimates demolishing and replacing 6,500 SF of concrete slab (5 inches thick). Demolition: \$4.50/SF. Concrete: \$170/CY with 5% waste. Finishing: \$2.25/SF. What is the total estimated cost?

- A. \$61,780, calculated as demolition (\$29,250) plus concrete with waste ($6,500 \times 5/12 \div 27 = 100.31 \text{ CY} \times 1.05 = 105.32 \text{ CY} \times \$170 = \$17,905$) plus finishing (\$14,625)
- B. \$29,250, representing only the demolition cost without the new slab or finishing
- C. \$46,530, calculated without the concrete waste factor and with a reduced finishing rate
- D. \$75,000, calculated using an 8inch slab thickness instead of the specified 5 inches

7. A public project bid form requires bidders to submit unit prices for 20 items of work. The bid instructions state: "Unit prices shall be used to adjust the contract price for actual quantity variations from the estimated quantities shown in the bid documents." After the contract is awarded, the actual quantity of Item 12 (structural backfill) is 3,200 cubic yards instead of the estimated 1,800 cubic yards. The contractor bid Item 12 at \$18.00 per cubic yard. How is the contract price adjusted?

- A. No adjustment because the lumpsum base bid covers all quantity variations regardless of the unit prices submitted
- B. The contractor receives a change order for the entire 3,200 cubic yards at a renegotiated unit price because the original quantity estimate was significantly inaccurate
- C. The contractor is paid \$18.00 per cubic yard for all 3,200 actual cubic yards, but may request a unit price adjustment for the additional 1,400 cubic yards if the contract contains a quantity variation clause allowing renegotiation when actual quantities exceed estimated quantities by a specified percentage
- D. The contract price is adjusted by applying the \$18.00 unit price to the 1,400cubicyard difference (3,200 actual minus 1,800 estimated), increasing the contract by \$25,200 — unit prices serve exactly this purpose, providing preagreed rates for adjusting the contract when actual quantities differ from estimates

8. A contractor receives five subcontractor quotes for the fire protection (sprinkler) work on a commercial office building: \$165,000, \$172,000, \$168,000, \$195,000, and \$162,000. The \$162,000 lowest quote comes from a subcontractor the contractor has worked with previously who delivered poor quality work and caused schedule delays on the last project. The \$168,000 thirddlowest quote comes from a highly reliable subcontractor with an excellent track record. What is the most prudent bidding strategy?

A. Use the \$162,000 lowest quote because competitive bidding ethics require always using the lowest subcontractor price

B. Use the \$168,000 quote from the reliable subcontractor because the \$6,000 difference (3.7%) is negligible compared to the risk of schedule delays, quality deficiencies, and coordination problems that a known poor performer would bring — the contractor's competitive position is better served by reliable execution than by marginal price savings from an unreliable subcontractor

C. Average all five quotes and use \$172,400 as the fire protection budget to build maximum contingency

D. Use the \$162,000 quote but add a \$20,000 contingency to cover the risk of the subcontractor's known performance problems

9. A contractor is preparing a bid for a commercial project and needs to calculate their overhead allocation. The contractor's annual fixed overhead costs are: office rent \$42,000; administrative salaries \$168,000; business insurance \$54,000; vehicle fleet \$28,800; office utilities \$10,800; technology \$14,400; marketing \$18,000; professional fees \$21,600. Total annual direct cost volume across all projects is \$2,560,000. What is the overhead rate?

A. 10%, calculated by dividing only the largest overhead expense by the annual direct cost volume

B. 15%, calculated using an industry standard rate without regard to the contractor's actual overhead

C. 14%, calculated by dividing total annual overhead of \$357,600 by the annual direct cost volume of \$2,560,000

D. 18%, calculated by including projectspecific direct costs in the overhead total

DOMAIN: CONTRACT MANAGEMENT (8 Questions)

10. A contractor on a fixedprice hospital expansion discovers that the specified medical gas piping system requires specialized ASSE 6010 certified installers. The contractor's bid did not include the cost of hiring an ASSEcertified subcontractor because the specification requirement was buried in a crossreference between Division 22 (Plumbing) and Division 23 (HVAC). The cost difference between standard plumbing installation and ASSEcertified medical gas installation is \$42,000. Can the contractor claim the \$42,000 as additional compensation?

A. Generally no, because the contractor is expected to thoroughly review all specifications including crossreferences during the bidding phase — the ASSE 6010 requirement was in the contract documents, and the contractor's failure to identify the crossreferenced specification during their review does not create a basis for a change order, though the contractor should verify this position against the specific contract terms regarding specification interpretations

B. Yes, because crossreferenced specifications are not binding on the contractor unless they are explicitly listed in the table of contents

C. Yes, because medical gas piping is a specialty trade that is always treated as additional scope on hospital projects

D. The contractor can claim the difference only if the crossreference was added by addendum after the original bid documents were issued

11. A project architect issues a bulletin during construction requiring the contractor to install acoustic ceiling tiles with a higher Noise Reduction Coefficient (NRC) rating than originally specified. The upgraded tiles cost \$3.80 per square foot compared to the original specification's \$2.40 per square foot. The project has 22,000 square feet of ceiling. The architect states the change is necessary to meet the owner's acoustic performance requirements that were not fully addressed in the original design. Who should pay for the upgrade?

A. The contractor, because ceiling tiles are part of the base building scope regardless of the NRC rating specified

B. The building tenants, because acoustic performance directly benefits the occupants and should be funded through tenant improvement allowances

C. The contractor should absorb 50% and the owner should pay 50% because acoustic design is a shared responsibility

D. The owner should pay through a change order because the architect's bulletin changes the specification from what was included in the original contract documents — the contractor priced the original NRC rating, and upgrading to a higherrated product constitutes a scope change that the contractor could not have anticipated from the original specifications

12. A general contractor on a commercial project maintains a detailed submittal log. The architect's contractual review period for submittals is 14 days. The contractor's log shows that 18 submittals have been outstanding for more than 21 days without architect response. Several of these delayed submittals are for materials on the critical path — specifically, the structural steel shop drawings and the curtain wall system submittals. What is the most significant risk created by the delayed reviews?

A. The delayed reviews create minimal risk because submittals are administrative documents that do not affect the construction schedule

B. The delayed submittal reviews prevent the contractor from ordering critical path materials (structural steel fabrication and curtain wall manufacturing cannot begin until shop drawings are approved), creating a direct schedule impact that compounds with each additional day of delay — the contractor should send formal written notice documenting the overdue submittals, the contractual review period, and the specific schedule activities being delayed

C. The risk is limited to the submittal processing fee that the architect charges for each review cycle

D. The delayed reviews affect only the project closeout documentation and have no impact during active construction

13. A subcontractor on a commercial project provides a 2-year warranty on their roofing installation. Eighteen months after substantial completion, a severe windstorm with 90 mph gusts causes significant damage to the roof. The building owner demands the roofing subcontractor repair the damage under the warranty. The subcontractor argues the windstorm damage is an "act of God" that is excluded from warranty coverage. Under most standard warranty provisions, is the subcontractor's position valid?

A. No, because all damage occurring during the warranty period is covered regardless of the cause

B. No, because windstorms are foreseeable weather events that the roofing system should be designed to withstand

C. The subcontractor's position has merit — standard warranties cover defects in materials and workmanship, not damage caused by extraordinary external events like a 90 mph windstorm that exceeds the design wind load, which may constitute an act of God or force majeure event excluded from warranty coverage, though the outcome depends on whether the roofing system was installed to the specified wind resistance standards

D. Yes, because all weather-related damage is automatically excluded from all construction warranties without exception

14. A contractor on a \$6,000,000 commercial project discovers at the 75% completion mark that the project will likely finish \$180,000 over the original estimated cost. The contractor's project manager investigates and determines that \$110,000 of the overrun is attributable to owner-directed design changes that were performed without formal change orders, and \$70,000 is attributable to the contractor's own productivity shortfall. What should the project manager do?

A. Submit change order requests for the \$110,000 in undocumented owner-directed changes, supported by daily reports and correspondence documenting the owner's directives, while implementing corrective actions to address the \$70,000 productivity shortfall — the two

categories of cost overrun require fundamentally different responses because one is the owner's financial responsibility and the other is the contractor's operational problem

B. Submit a single change order for the full \$180,000 because the overrun is the result of project conditions beyond the contractor's control

C. Absorb the entire \$180,000 because fixed-price contracts transfer all cost risk to the contractor

D. Request a meeting with the owner to negotiate a 50/50 split of the total overrun regardless of the cause

15. A construction contract includes a "paywhenpaid" clause stating: "Payment to Subcontractor shall be made within 14 days after Contractor receives corresponding payment from the Owner." The owner pays the contractor 45 days after the architect certifies the payment application. The contractor then waits an additional 30 days before paying the subcontractor — 44 days after receiving the owner's payment. Has the contractor complied with the paywhenpaid clause?

A. Yes, because paywhenpaid clauses establish only a timing trigger, and the contractor paid the subcontractor after receiving the owner's payment

B. Yes, because the 30-day payment delay after receiving owner payment is within the industry standard tolerance for subcontractor payments

C. No, but the subcontractor's only remedy is to file a complaint with the ACLB because subcontract payment disputes are exclusively within the Board's jurisdiction

D. No, because the clause requires payment "within 14 days" after receiving the owner's payment — the contractor received the owner's payment and then waited 30 days instead of the contractual 14 days, which is a breach of the subcontract's payment provisions

16. A project owner issues a stopwork directive during construction of a commercial office building, ordering the contractor to halt all work for 21 days while the architect redesigns the building's main entrance. The stopwork order is not caused by any fault of the contractor. During the 21-day suspension, the contractor incurs \$63,000 in extended overhead costs (supervision, site security, equipment standby, temporary facilities, and insurance). The contract's suspension clause provides for a time extension but is silent on monetary compensation for suspensions. What is the contractor entitled to?

A. Nothing beyond the time extension because the suspension clause is silent on monetary compensation, which means the contractor assumed the financial risk of owner-directed suspensions

B. The contractor is entitled to the 21day time extension under the suspension clause, and may also pursue the \$63,000 in extended overhead costs under the contract's changes clause or constructive change doctrine — an ownerdirected work suspension for redesign constitutes an action that modifies the contractor's performance obligations, and many courts recognize this as a compensable event even when the suspension clause itself is silent on damages

C. Only the return of unused materials purchased for the entrance work that is being redesigned

D. The \$63,000 in overhead costs only, without a time extension, because the contractor should accelerate to recover the lost days

17. A contractor completes a commercial building and the architect issues the certificate of substantial completion on October 15. The contract states the warranty period is "one year from substantial completion." On September 30 of the following year — fifteen days before the warranty expires — the building owner discovers that the exterior stucco is cracking extensively due to improper application by the contractor's stucco subcontractor. The owner notifies the contractor immediately. The contractor responds that they need 8 weeks to investigate and schedule the repair. Can the contractor delay the investigation and repair past the warranty expiration date?

A. Yes, because the warranty expires on October 15 and the contractor has no obligation to perform warranty work after that date

B. Yes, because the contractor has 90 days after notification to schedule warranty repairs regardless of the warranty expiration date

C. No, because the owner discovered and reported the defect on September 30 — within the warranty period — which preserves the claim, and the contractor is obligated to investigate and repair the stucco regardless of whether the repair extends past the October 15 warranty expiration date

D. No, but only if the owner files a formal warranty claim with the contractor's surety before the October 15 expiration

18. A contractor on a public school project receives a change order adding a commercial kitchen to the cafeteria — work not included in the original contract. The change order is valued at \$285,000. The contractor will subcontract \$220,000 of the kitchen equipment installation and selfperform \$65,000 of the structural and utility connections. The contract allows 15% markup on selfperformed change order work and 8% on subcontracted work. What is the total billable change order amount?

A. \$312,350, calculated as selfperformed ($\$65,000 \times 1.15 = \$74,750$) plus subcontracted ($\$220,000 \times 1.08 = \$237,600$)

B. \$327,750, calculated at 15% on the full \$285,000

- C. \$285,000 with no markup because the change order price was prenegotiated
- D. \$299,250, calculated by applying a blended 5% markup to the total change order amount

19. A contractor working on a commercial renovation discovers that the building's existing electrical panel is rated for 400 amps, but the new mechanical equipment specified in the contract documents requires a minimum of 600amp service. The original contract documents did not identify this capacity shortfall — the architect's design assumed the existing panel would accommodate the new loads. Upgrading the electrical service costs \$48,000. Under the Spearin Doctrine, who bears this cost?

- A. The contractor, because they should have independently verified the existing electrical capacity before submitting their bid
- B. The electrical subcontractor, because power capacity verification is exclusively an electrical trade responsibility
- C. The cost should be shared equally between the contractor and the architect because both parties failed to identify the capacity shortfall
- D. The owner bears the cost through a change order because 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 be sufficient, and the contractor relied on this implied representation when pricing their bid

20. A general contractor's subcontract with a concrete subcontractor includes a flowdown provision incorporating the prime contract's quality standards. The prime contract requires all concrete to achieve a minimum 28day compressive strength of 4,500 PSI. The concrete subcontractor's 28day cylinder break tests show results of 4,100 PSI, 4,300 PSI, and 4,200 PSI — all below the 4,500 PSI specification. The subcontractor argues the concrete is "close enough" and the structural engineer should accept it. What should the general contractor do?

- A. Accept the concrete because the test results are within 10% of the specification, which is standard industry tolerance
- B. Notify the architect and structural engineer of the failed test results, request a formal determination on whether the belowspecification concrete is structurally adequate, and prepare for the possibility that core testing, load testing, or removal and replacement may be required — because "close enough" does not satisfy the specification, and the general contractor cannot unilaterally accept nonconforming structural concrete
- C. Apply a surface hardener to the concrete to bring the compressive strength up to the required 4,500 PSI

D. Accept the subcontractor's argument and document the deviation in the asbuilt drawings for future reference

DOMAIN: PROJECT MANAGEMENT (6 Questions)

21. A project manager on a commercial building project calculates earned value metrics at the 55% completion mark: BAC = \$8,500,000; PV = \$4,675,000; EV = \$4,250,000; AC = \$4,600,000. What do the SPI, CPI, and projected EAC indicate about the project?

- A. SPI = 1.10 and CPI = 1.08, indicating the project is ahead of schedule and under budget
- B. SPI = 0.91 and CPI = 0.92, indicating the project is behind schedule but under budget
- C. SPI = 0.909 ($\$4,250,000 \div \$4,675,000$) and CPI = 0.924 ($\$4,250,000 \div \$4,600,000$) — both below 1.0, indicating the project is behind schedule and over budget, with an EAC of approximately \$9,199,000 ($\$8,500,000 \div 0.924$) if the cost trend continues
- D. The metrics indicate the project is on track because both SPI and CPI are above 0.90, which is within acceptable tolerance

22. A contractor's superintendent discovers that the framing subcontractor has been using 2×10 floor joists at 24 inches on center in an area where the structural drawings specify 2×12 joists at 16 inches on center. The incorrect framing has been installed over approximately 1,200 square feet and is not yet covered by subflooring. What should the superintendent do?

- A. Stop the framing subcontractor immediately, document the nonconforming installation with photographs and measurements, notify the architect and structural engineer of the deviation, and require the subcontractor to remove the incorrect framing and install the specified 2×12 joists at 16 inches on center at the subcontractor's sole expense — using undersized joists at wider spacing is a structural safety issue that cannot be accepted through a field modification
- B. Accept the installation because the framing subcontractor's professional judgment on joist sizing should be trusted
- C. Apply a credit to the owner for the material cost difference between 2×10 and 2×12 joists
- D. Add an additional layer of 3/4inch plywood subflooring to compensate for the reduced structural capacity of the smaller joists

23. A project schedule shows the following critical path: Foundation (18 days) → Steel Erection (24 days) → Metal Deck (10 days) → Concrete Topping (6 days) → MEP RoughIn

(16 days) → Drywall (12 days) → Finishes (14 days) → Closeout (4 days). Total: 104 days. The owner issues a change order adding a mezzanine that requires 8 additional days of steel erection and 4 additional days of metal decking. What is the revised critical path duration?

- A. 104 days, unchanged because the mezzanine work can be performed concurrently with existing activities
- B. 112 days, calculated by adding only the 8 steel erection days because the metal decking days are absorbed within the existing schedule
- C. 108 days, calculated by adding only the 4 metal decking days because the steel erection days overlap with existing steel work
- D. 116 days, calculated as the original 104 days plus 8 additional steel days plus 4 additional decking days — both additions are on the critical path with finish-to-start relationships, extending the project by 12 days

24. A contractor managing a renovation project in an occupied hospital discovers that the demolition work is generating more dust than anticipated despite dust control barriers being in place. The hospital's infection control officer reports that dust particle counts in adjacent patient care areas exceed the acceptable threshold. The contract requires the contractor to maintain infection control standards during construction. What should the contractor do?

- A. Continue demolition at the current pace and request the hospital to relocate patients from adjacent areas until the demolition is complete
- B. Immediately upgrade the dust containment measures — install additional negative air pressure systems, upgrade barrier materials, improve the critical barrier entry/exit procedures, and increase the frequency of particle count monitoring — because exceeding dust thresholds in patient care areas creates immediate health risks and violates the contract's infection control requirements
- C. Slow the demolition pace by 50% to reduce dust generation and accept the resulting schedule extension
- D. Stop all demolition work permanently and request the owner to hire a separate demolition contractor with specialized hospital experience

25. A contractor's three-week lookahead schedule identifies that a critical structural steel delivery is scheduled for Week 2. The steel fabricator notifies the contractor that the delivery will be delayed by 2 weeks due to a steel mill production backlog. The structural steel erection is on the critical path with zero float. What should the project manager do?

- A. Immediately notify the owner of the potential 2week delay, explore expediting options with the fabricator, contact alternative fabricators or steel service centers that may have the required sections in stock, evaluate whether any noncritical activities can be advanced during the delay period, and prepare a schedule recovery plan showing how the delay can be mitigated — because a 2week critical path delay requires immediate multifront action
- B. Wait for the steel to arrive and adjust the schedule after the delay occurs
- C. Switch the structural system from steel to wood framing to eliminate the steel delivery dependency
- D. Terminate the steel fabrication contract and source materials from an overseas supplier with shorter lead times

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 \$10,000,000 umbrella policy. During the policy year, a catastrophic scaffolding collapse injures multiple workers from other trades and damages adjacent property, producing a \$14,000,000 judgment. How is the judgment covered, and what is the contractor's personal exposure?

- A. The CGL pays \$4,000,000 (aggregate) and the umbrella pays \$10,000,000, fully covering the \$14,000,000 judgment with \$0 personal exposure
- B. The CGL pays \$2,000,000 (peroccurrence) and the umbrella pays \$10,000,000, leaving \$2,000,000 in personal exposure
- C. The CGL and umbrella combined pay \$6,000,000, leaving \$8,000,000 in personal exposure
- D. The CGL pays \$2,000,000 (peroccurrence limit for this single event) and the umbrella pays \$10,000,000 — total insurance coverage is \$12,000,000, leaving \$2,000,000 of the \$14,000,000 judgment as the contractor's personal financial responsibility

27. A surety evaluates a contractor for a \$2,200,000 performance bond. The contractor's balance sheet shows: working capital \$180,000; net worth \$580,000; annual revenue \$4,500,000; existing bonded backlog \$1,900,000. The surety uses a multiplier of 15 times working capital. What is the surety's likely assessment?

- A. Automatic approval because the contractor's net worth exceeds 25% of the requested bond amount

B. The bonding capacity is \$2,700,000 ($15 \times \$180,000$), and with \$1,900,000 already committed, only \$800,000 of capacity remains — the \$2,200,000 bond request exceeds available capacity by \$1,400,000, and the surety will likely deny the bond unless the contractor significantly increases working capital or completes existing bonded projects

C. Automatic approval because the annual revenue of \$4,500,000 demonstrates sufficient operational capacity

D. Conditional approval with a requirement that the contractor provide personal guarantees from all company principals

28. A contractor's workers' compensation policy is audited at yearend. The audit reveals the following payroll discrepancies: 3 workers classified as "general clerical" (\$1.80 per \$100) actually perform fulltime field supervision (\$9.20 per \$100); and 2 workers classified as "carpentry" (\$12.50 per \$100) actually perform "roofing" work (\$24.00 per \$100). The misclassified clerical payroll totals \$195,000 and the misclassified carpentry payroll totals \$140,000. The contractor's EMR is 1.05. What is the approximate total additional premium owed?

A. Approximately \$32,057 — calculated as the clerical to supervision premium difference (\$15,152) plus the carpentry to roofing premium difference (\$16,905), reflecting the actual risk exposure for each worker's true job duties rather than their misclassified positions

B. \$14,430, calculated using only the clerical to supervision adjustment without the carpentry to roofing adjustment

C. \$48,000, calculated at a flat penalty rate of 15% on the combined misclassified payroll

D. \$0, because premium audits cannot adjust classifications retroactively for work already completed

DOMAIN: OSHA RECORDKEEPING (3 Questions)

29. A construction worker is using a grinder when a grinding disc shatters and a fragment strikes the worker's forearm. The wound requires 6 sutures at an urgent care clinic. The worker returns to work the next day on full duty with no restrictions. One week later, 2 of the 6 sutures are removed early because the wound is healing well. The remaining 4 sutures are removed at the scheduled followup visit. Is this case OSHA recordable, and why?

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

B. No, because the early removal of sutures indicates the wound was minor and does not warrant recording

C. Yes, because sutures constitute medical treatment beyond first aid — OSHA's first aid definition includes wound closure strips and butterfly bandages but specifically excludes sutures, making any case requiring sutures recordable regardless of the worker's return to full duty or the absence of lost time

D. Yes, but only because the suture count exceeded 5, which is the threshold for suture-related recordability

30. An employer with 175 employees in the construction industry wants to confirm their electronic reporting obligations under OSHA's recordkeeping rules. The employer operates in NAICS code 238 (Specialty Trade Contractors). What electronic reporting requirement applies?

A. No electronic reporting obligation exists because specialty trade contractors are exempt from OSHA's electronic submission requirements

B. The employer must submit all 300 Logs and 301 Incident Reports electronically within 7 days of each recordable incident

C. The employer must submit only fatality data electronically because nonfatal injuries are reported on paper forms

D. The employer must submit the information from their OSHA 300A Annual Summary electronically through OSHA's Injury Tracking Application by March 2 of the following year — establishments with 20249 employees in highhazard industries (including NAICS 238) must electronically submit 300A summary data annually

31. A construction company experiences the following incident: a worker operating a pneumatic jackhammer develops numbness and tingling in their hands (suspected handarm vibration syndrome). The worker visits a physician who diagnoses the condition as work-related, prescribes antiinflammatory medication, and recommends the worker be reassigned to tasks not involving vibrating equipment. The worker is reassigned to nonvibrating duties for 3 weeks. Is this case OSHA recordable, and under what classification?

A. No, because numbness and tingling are subjective symptoms that do not constitute a recordable injury or illness

B. Yes, recorded as "restricted work" because the worker was reassigned from their regular duties to nonvibrating tasks — the physiandiagnosed work-related condition, the prescribed medication (medical treatment beyond first aid), and the restriction from vibrating equipment (restricted work activity) all independently trigger recordability

C. Yes, but only as "medical treatment" because the prescription medication is the sole recordability trigger

D. No, because handarm vibration syndrome is classified as a preexisting condition that cannot be attributed to workplace activities

DOMAIN: PERSONNEL REGULATIONS (8 Questions)

32. A contractor with 60 employees has an electrician who has worked for the company for 5 years. The electrician requests 6 weeks of FMLA leave to undergo chemotherapy for a recently diagnosed cancer. The electrician asks whether their health insurance will continue during the leave. Under the FMLA, what is the employer's obligation regarding health insurance during FMLA leave?

A. The employer must maintain the employee's group health insurance coverage during FMLA leave under the same terms and conditions as if the employee had continued to work — the employee remains responsible for their regular share of the premium, and the employer cannot cancel or reduce coverage during the FMLA leave period

B. The employer can suspend health insurance coverage during FMLA leave because the employee is not actively working

C. The employer must maintain coverage but can switch the employee to a less comprehensive plan during the leave period

D. Health insurance continuation during FMLA leave is entirely optional and depends on the employer's internal benefits policy

33. A nonexempt heavy equipment operator earns \$42.00 per hour. During a workweek, the operator works 48 hours. The employer provides the operator with employerpaid housing at a construction camp valued at \$150 per week because the project is in a remote location. The housing is provided primarily for the employer's convenience to ensure workers are available for earlymorning shifts. Under the FLSA, how does the housing benefit affect the overtime calculation?

A. The \$150 housing value must be included in the regular rate because it is compensation that constitutes part of the worker's total remuneration

B. The housing value is excluded from the regular rate because it is provided as a reimbursement for living expenses

C. The housing value is excluded from the regular rate because it is provided primarily for the employer's convenience and not as compensation for services — under the FLSA, lodging provided primarily for the employer's benefit (rather than as additional compensation to the employee) is generally excluded from the regular rate calculation

D. The housing value is included in the regular rate only for the overtime hours, not the straighttime hours

34. An employer with 45 employees terminates a 48-year-old project superintendent and replaces them with a 31-year-old project engineer at a 30% lower salary. The terminated superintendent had consistently excellent performance reviews for 8 years. The employer states the termination was a "restructuring" decision. Under the ADEA, what evidence would most strongly support an age discrimination claim?

A. Evidence that the employer does not have a written policy prohibiting age discrimination

B. Testimony from coworkers that the employer made age-related comments such as "we need fresh blood" and "the team needs to get younger" during management meetings preceding the termination decision

C. Evidence that the replacement employee has a college degree while the terminated superintendent does not

D. A pattern showing the employer systematically replaced workers over 40 with younger, lower-paid replacements over the past 3 years — combined with the 8 years of excellent performance reviews (contradicting any performance-based justification), the "restructuring" rationale that correlates salary level with age/tenure, and direct evidence of age-related statements by decisionmakers — this combination of pattern, pretext, and direct evidence creates the strongest age discrimination case

35. An employer's safety policy requires all workers to attend a mandatory 1-hour safety orientation before their first day of work. The orientation covers PPE requirements, emergency procedures, hazard communication, and site-specific safety rules. The employer does not pay workers for the orientation hour. Under the FLSA, is this practice lawful?

A. Yes, because preemployment orientation is classified as a hiring activity rather than compensable work time

B. No, because mandatory training that is required by the employer and directly related to the employee's job is compensable "hours worked" under the FLSA — the orientation must be paid, and the hour counts toward the weekly total for overtime calculation purposes

C. Yes, because safety orientations are classified as regulatory compliance activities exempt from FLSA compensation requirements

D. No, but only if the orientation exceeds 2 hours in duration, because orientations under 2 hours are classified as de minimis time

36. An employer with 35 employees has a worker who files a workers' compensation claim for a shoulder injury sustained while lifting heavy materials. The employer's workers' compensation carrier accepts the claim. Two weeks after filing the claim, the worker's supervisor begins giving the worker the most undesirable assignments, publicly criticizing the worker's performance, and documenting minor infractions that were previously ignored for all workers. The worker alleges retaliation. What is the employer's exposure?

A. No exposure because supervisors have discretion over work assignments and performance documentation

B. No exposure because workers' compensation retaliation claims require proof that the employer explicitly stated they were retaliating

C. Significant exposure — the temporal proximity between the workers' compensation filing and the adverse actions, combined with the sudden shift in supervisory treatment (undesirable assignments, public criticism, selective documentation of minor infractions), creates a strong inference of retaliation that the employer will have difficulty rebutting without credible alternative explanations for the changed treatment

D. Minimal exposure because the supervisor's actions are classified as normal performance management activities

37. A contractor operating on a DavisBacon covered project has workers who perform splitclassification duties. Worker X spends 28 hours as a carpenter (\$36.00/hour + \$16.00/fringe) and 16 hours as a laborer (\$22.00/hour + \$10.00/fringe) during a 44hour workweek. How must the overtime be calculated?

A. The 4 overtime hours are paid at the weighted average overtime rate, calculated as follows: total straighttime earnings = $(28 \times \$36) + (16 \times \$22) = \$1,008 + \$352 = \$1,360$; regular rate = $\$1,360 \div 44 = \30.91 ; overtime premium = $\$30.91 \times 0.5 = \$15.45 \times 4 \text{ hours} = \61.82 additional premium — and fringe benefits for each classification continue at the straighttime rate for the hours worked in each classification

B. All 44 hours are paid at the higher carpenter rate because the majority of hours were worked in the carpenter classification

C. The 4 overtime hours are automatically assigned to the carpenter classification because more hours were worked in that trade

D. Overtime is calculated at 1.5 times the laborer rate for all 4 overtime hours because the lower classification is used for overtime calculation on splitclassification workweeks

38. An employer discovers that their payroll processor has been paying 6 Hispanic employees \$3.00 per hour less than nonHispanic employees performing the same work with comparable qualifications and experience. The pay disparity has existed for 16 months. What federal laws has the employer violated, and what is the approximate minimum exposure?

- A. Only the Equal Pay Act, with liability limited to the past 6 months of pay differences
- B. Only Title VII, with damages capped at \$50,000 per affected employee
- C. Both laws apply but the employer has no liability because the payroll processor — not the employer — created the disparity
- D. Title VII (national origin discrimination in compensation) and potentially the Equal Pay Act — the minimum backpay exposure is $\$3.00/\text{hour} \times \text{average hours/week} \times \text{approximately 70 weeks (16 months)} \times 6 \text{ workers}$, plus potential liquidated damages under the EPA (doubling back pay), plus attorney fees and court costs

39. An employer has 50 employees. A carpenter requests FMLA leave to accompany their elderly mother to a 3hour medical appointment. The mother has a serious health condition requiring ongoing treatment. The carpenter has worked for the company for 4 years. Under the FMLA, is the employer required to grant this request?

- A. No, because the FMLA does not cover time off for medical appointments — only inpatient care or extended treatment
- B. Yes, because the FMLA provides intermittent leave to care for a parent with a serious health condition, and accompanying a parent to a medical appointment related to their serious health condition is a qualifying use of FMLA leave — the employer has 50 employees (meeting the threshold) and the carpenter has 4 years of tenure (exceeding the eligibility requirement)
- C. No, because FMLA leave requires a minimum absence of one full workday and cannot be used for partialday absences
- D. Yes, but only if the carpenter provides 30 days' advance notice for the appointment

40. An employer with 28 employees wants to implement preemployment drug testing for all construction positions. Several applicants object, arguing that preemployment drug testing violates their privacy rights. In the private sector construction industry, is preemployment drug testing lawful?

- A. No, because preemployment drug testing is prohibited for all private sector employers under the Fourth Amendment

B. No, because drug testing can only be conducted after employment begins, not before a conditional job offer is made

C. Yes, because private sector construction employers have broad authority to implement preemployment drug testing as a condition of employment — construction is a safety-sensitive industry, the testing program must be applied uniformly to all applicants for the same position, and the testing must comply with applicable state laws regarding specimen collection, laboratory certification, and confirmation testing procedures

D. Yes, but only for positions involving the operation of heavy equipment or motor vehicles

DOMAIN: FINANCIAL MANAGEMENT (5 Questions)

41. A contractor's WIP report shows Project Beta: revised contract \$2,200,000; estimated total cost \$1,870,000; costs to date \$1,309,000; billings to date \$1,400,000. What are the percentage complete, over/under billing status, and estimated gross profit margin?

A. 70% complete ($\$1,309,000 \div \$1,870,000$), underbilled by \$140,000 (earned revenue of \$1,540,000 minus billings of \$1,400,000), with a 15% estimated gross profit margin ($\$330,000 \div \$2,200,000$)

B. 60% complete, overbilled by \$91,000, gross margin 12%

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

D. 70% complete, overbilled by \$140,000, gross margin 10%

42. A contractor uses the percentage-of-completion method on a \$3,200,000 project with original estimated costs of \$2,720,000. At the end of Year 1, costs incurred total \$1,360,000. The estimator revises the total estimated cost to \$2,880,000 due to material escalation. What is the cumulative gross profit that should be recognized through Year 1 under the revised estimate?

A. \$240,000, based on the original estimate without revision ($50\% \times \$480,000$)

B. \$160,000, calculated by applying a flat 10% profit rate to the costs incurred

C. \$480,000, representing the full original estimated profit recognized immediately

D. \$151,111 — revised profit = $\$3,200,000 - \$2,880,000 = \$320,000$; revised % complete = $\$1,360,000 \div \$2,880,000 = 47.2\%$; cumulative profit = $47.2\% \times \$320,000 = \$151,111$, compared to the \$240,000 originally recognized ($50\% \times \$480,000$), requiring a downward adjustment of approximately \$88,889 in Year 2

43. A contractor's cash flow analysis reveals that their accounts receivable DSO (Days Sales Outstanding) has increased from 45 days to 72 days over the past year. Annual revenue is \$5,400,000. What is the approximate additional working capital tied up in receivables due to the 27day DSO increase?

- A. \$135,000, calculated by applying a flat 2.5% of annual revenue as the DSO impact
- B. \$399,452, calculated as $(\$5,400,000 \div 365) \times 27$ days — approximately \$400,000 in additional working capital is now trapped in uncollected receivables, reducing cash available for operations, payroll, and materials, and potentially requiring increased borrowing to fund the shortfall
- C. \$54,000, calculated using 1% of annual revenue per day of DSO increase
- D. \$1,080,000, calculated by multiplying the daily revenue by 72 days instead of by the 27day increase

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, and what is their current ratio?

- A. Net worth \$650,000 (exceeds \$50K minimum), working capital \$280,000, current ratio 0.75 — fails the financial requirements because the current ratio is below 1.0
- B. Net worth \$650,000, working capital \$280,000, current ratio 1.82 — meets all financial requirements
- C. Net worth \$650,000 (exceeds the \$50,000 minimum), working capital \$280,000 ($\$1,100,000 - \$820,000$), and current ratio 1.34 ($\$1,100,000 \div \$820,000$) — the contractor meets the basic ACLB financial thresholds, provided the statement is audited or reviewed and cash meets the \$25,000 minimum
- D. Net worth \$1,850,000, working capital \$1,100,000, current ratio 2.5 — exceeds all requirements

45. A contractor's income statement shows: total contract revenue \$6,600,000; cost of construction \$5,610,000; G&A expenses \$594,000. What are the gross profit, gross margin, net income, and net margin?

- A. Gross profit \$990,000 (15%), net income \$396,000 (6%) — calculated as: revenue minus cost = \$990,000; $\$990,000 \div \$6,600,000 = 15\%$ gross margin; $\$990,000$ minus $\$594,000$ G&A = $\$396,000$ net income; $\$396,000 \div \$6,600,000 = 6\%$ net margin
- B. Gross profit \$594,000 (9%), net income \$0 (0%)

C. Gross profit \$990,000 (15%), net income \$594,000 (9%)

D. Gross profit \$660,000 (10%), net income \$66,000 (1%)

DOMAIN: TAX LAWS (5 Questions)

46. A contractor organized as an S Corporation has two equal shareholders who both work fulltime in the business. The company earns \$500,000 in net income. Each shareholder takes a salary of \$95,000 and a distribution of \$155,000. The IRS determines that a reasonable salary for each shareholder is \$140,000. What is the total additional FICA tax exposure for both shareholders combined?

A. \$0, because the IRS cannot reclassify S Corporation distributions as salary

B. \$7,650, calculated at 15.3% on only one shareholder's reclassified amount

C. \$45,900, calculated at 15.3% on the entire \$300,000 in combined distributions

D. Approximately \$13,770 — the IRS reclassifies \$45,000 per shareholder (\$140,000 reasonable minus \$95,000 paid) from distributions to salary, subjecting \$90,000 combined to the 15.3% FICA rate ($\$90,000 \times 0.153 = \$13,770$), plus penalties and interest on the underreported payroll taxes

47. An employer with 40 employees makes their payroll tax deposit 12 days late. The deposit amount is \$24,000. Under the IRS graduated penalty structure, what penalty rate applies?

A. 2%, applicable to deposits 15 days late

B. 5%, applicable to deposits 615 days late — the \$24,000 deposit that is 12 days past the deadline triggers the second tier penalty rate of 5%, resulting in a \$1,200 penalty

C. 10%, applicable to deposits more than 15 days late

D. 15%, applicable only after the employer receives a formal IRS notice and fails to deposit within 10 days

48. A contractor purchases a \$110,000 backhoe and wants to maximize their first year tax deduction. The backhoe is used 90% for business and 10% for personal use. Under Section 179 rules, what is the maximum first year deduction?

A. \$110,000, representing the full purchase price because construction equipment is exempt from business use percentage limitations

B. \$55,000, calculated at 50% of the purchase price because Section 179 requires straightline treatment for mixed-use assets

C. \$99,000, calculated as $\$110,000 \times 90\%$ business use — Section 179 deductions on listed property must be reduced by the personal-use percentage, and the 90% business-use portion is the maximum deductible amount, subject to applicable dollar limits and income limitations

D. \$11,000, calculated as the personal-use portion because Section 179 deducts only the nonbusiness percentage

49. A sole proprietor earns \$175,000 in net SE income. After the 92.35% adjustment (\$161,603), what is the approximate SE tax?

A. Approximately \$24,725 — the adjusted income of \$161,603 is below the Social Security wage base of \$168,600, so the full 12.4% SS tax applies (\$20,039), plus 2.9% Medicare on the full amount (\$4,686), totaling \$24,725 with no additional Medicare surtax because adjusted SE income is below \$200,000

B. \$26,775, calculated at the flat 15.3% rate on the full \$175,000 without the 92.35% adjustment

C. \$20,039, calculated using only the Social Security portion without Medicare

D. \$16,813, calculated at a reduced 9.35% rate for self-employed individuals with income under \$200,000

50. A contractor organized as a partnership earns \$800,000 in net income. Partner A owns 55% and Partner B owns 45%. Both work fulltime. Partner A has \$25,000 in W2 income from a parttime teaching position. For Partner A's selfemployment tax calculation on their \$440,000 distributive share, how does the W2 income affect the Social Security portion?

A. The W2 income has no effect because W2 wages and partnership income use separate tax systems

B. Partner A must pay SE tax on the combined \$465,000 using a single unified calculation

C. The W2 income exempts the first \$25,000 of partnership income from all SE taxes

D. The \$25,000 in W2 wages reduces the Social Security wage base available for SE tax — the 12.4% Social Security tax applies to approximately \$143,600 of Partner A's selfemployment income (\$168,600 wage base minus \$25,000 W2), while the 2.9% Medicare tax applies to the full distributive share with no cap, plus the additional 0.9% Medicare surtax on SE income exceeding \$200,000

Practice Exam 24: Answer Key and Explanations

- 1. A** — The IRS would reclassify \$60,000 of distributions as salary (\$145,000 reasonable minus \$85,000 paid). The combined employer and employee FICA rate of 15.3% on the \$60,000 yields approximately \$9,180 in additional FICA taxes. Penalties and interest on the underreported payroll taxes from the original due dates compound the exposure beyond the base tax amount.
- 2. C** — Different commercial license classifications authorize different types of work. A wastewater treatment plant involves heavy civil construction, process piping, and specialized systems that may require classifications beyond BU and ME — such as Heavy Construction (HE) or Utility Construction (UT). Performing work outside authorized classifications is a licensing violation regardless of holding a valid license in other categories.
- 3. B** — All work performed during the 60day lapse constitutes unlicensed activity because the license was expired. The ACLB can impose disciplinary sanctions ranging from fines to suspension for operating without a valid license. The contractor's prior licensing history does not excuse the lapse, and all three active projects (\$1,400,000 total) were performed without authorization.
- 4. D** — When a contractor promptly notifies the ACLB and designates a qualified replacement QI on the same day the original QI retires, the license typically remains valid during the administrative processing period. The contractor acted in good faith by immediately identifying a qualified replacement and submitting the change notification. The ACLB's 10day processing time is an administrative function.
- 5. C** — Arkansas courts may treat contracts entered into by individuals performing licensable work without a license as unenforceable. The \$55,000 project exceeds the residential licensing threshold, making licensing mandatory. The unlicensed individual may be denied any legal remedy to collect payment — regardless of the quality of work performed — because the contract itself may be void as a matter of public policy.
- 6. A** — Demolition: $6,500 \times \$4.50 = \$29,250$. Concrete volume: $6,500 \times (5/12) = 2,708 \text{ CF} \div 27 = 100.31 \text{ CY}$. With 5% waste: $105.32 \text{ CY} \times \$170 = \$17,905$. Finishing: $6,500 \times \$2.25 = \$14,625$. Total: $\$29,250 + \$17,905 + \$14,625 = \$61,780$. Each component must be calculated separately using its specific unit cost.
- 7. D** — Unit prices serve exactly this purpose — adjusting the contract price when actual quantities differ from estimates. The contract price is adjusted by applying the \$18.00 unit price to the 1,400 CY quantity difference (3,200 actual minus 1,800 estimated), increasing the contract by \$25,200. This preagreed mechanism eliminates the need for change order negotiations on quantity variations.
- 8. B** — The \$6,000 difference (3.7%) between the lowest quote (\$162,000) and the reliable subcontractor's quote (\$168,000) is negligible compared to the known risk of schedule delays and quality problems from the poor performer. Using a proven subcontractor with an excellent track record produces a more competitive overall project outcome than marginal price savings from an unreliable firm.

9. C — Total overhead: $\$42,000 + \$168,000 + \$54,000 + \$28,800 + \$10,800 + \$14,400 + \$18,000 + \$21,600 = \$357,600$. Overhead rate: $\$357,600 \div \$2,560,000 = 14.0\%$. Every overhead expense must be included in the calculation to ensure full recovery across all projects. Missing even one category results in unrecovered overhead that directly reduces net profit.

10. A — The contractor is expected to thoroughly review all specifications including crossreferences during the bidding phase. The ASSE 6010 requirement was contained in the contract documents — the fact that it was crossreferenced between divisions does not make it additional scope. The contractor's failure to identify the crossreferenced specification during bid review does not create a valid change order basis.

11. D — The architect's bulletin changes the specification from the originally specified NRC rating to a higher rating. The contractor priced the original specification. Upgrading to a higherrated product constitutes a scope change that the contractor could not have anticipated from the original documents. The \$1.40 per square foot increase across 22,000 SF (\$30,800) should be addressed through a change order.

12. B — Delayed submittal reviews prevent the contractor from ordering criticalpath materials — structural steel fabrication and curtain wall manufacturing cannot begin until shop drawings are approved. Each additional day of delay compounds the schedule impact. The contractor must send formal written notice documenting the overdue submittals, the 14day contractual review period, and the specific schedule activities being delayed.

13. C — Standard warranties cover defects in materials and workmanship, not damage caused by extraordinary external events. A 90 mph windstorm that exceeds the design wind load may constitute an act of God excluded from warranty coverage. However, if the roofing system was not installed to the specified wind resistance standards, the subcontractor may be liable for the damage as a workmanship deficiency rather than a weather event.

14. A — The two categories of overrun require fundamentally different responses. The \$110,000 in undocumented ownerdirected changes should be pursued as change orders supported by daily reports and correspondence. The \$70,000 productivity shortfall is the contractor's operational problem requiring corrective action. Combining them into a single claim obscures the different causes and weakens both arguments.

15. D — The paywhenpaid clause requires payment "within 14 days" of receiving the owner's payment. The contractor waited 30 days after receipt — more than double the contractual timeframe. This 16day delay beyond the 14day deadline is a breach of the subcontract's payment terms. The clause establishes a specific timing obligation that the contractor failed to meet.

16. B — The contractor is entitled to the 21day time extension under the suspension clause. The \$63,000 in extended overhead may be recoverable under the changes clause or constructive change doctrine — an ownerdirected suspension for redesign modifies the contractor's performance conditions. Many courts recognize ownerdirected work stoppages as compensable events even when the suspension clause itself is silent on damages.

17. C — The owner discovered and reported the stucco cracking on September 30 — within the oneyear warranty period ending October 15. Timely notification within the warranty period preserves the claim. The contractor cannot avoid the warranty obligation by delaying

investigation and repair past October 15 — the claim was properly made within the warranty period.

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 separately based on who performs the work. The contractor cannot apply the selfperformed rate to subcontracted work or vice versa.

19. D — The Spearin Doctrine establishes that the owner impliedly warrants the adequacy of the design. The architect's design assumed the existing 400amp panel would accommodate the new 600amp load — this was an implied design representation. The contractor relied on this representation when pricing their bid. The \$48,000 electrical upgrade should be addressed through a change order.

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

21. C — $SPI = \$4,250,000 \div \$4,675,000 = 0.909$ (behind schedule). $CPI = \$4,250,000 \div \$4,600,000 = 0.924$ (over budget). $EAC = \$8,500,000 \div 0.924 = \$9,199,000$. Both indices below 1.0 confirm the project is behind schedule and over budget. The projected \$699,000 overrun requires immediate corrective action on both cost control and schedule recovery.

22. A — Using 2×10 joists at 24" on center instead of specified 2×12 at 16" on center is a structural safety issue. The undersized joists at wider spacing reduce the floor's loadcarrying capacity below the engineered design. The framing subcontractor must remove the nonconforming installation and install the correct framing at their sole expense before subflooring proceeds.

23. D — Original critical path: 104 days. The mezzanine adds 8 days to steel erection and 4 days to metal decking, both on the critical path with finish-to-start relationships. Revised: $18 + (24+8) + (10+4) + 6 + 16 + 12 + 14 + 4 = 116$ days. The project is extended by 12 days. Both additions are sequential critical path activities.

24. B — Exceeding dust thresholds in hospital patient care areas creates immediate health risks — particularly for immunocompromised patients — and violates the contract's infection control requirements. The contractor must immediately upgrade containment measures: additional negative air pressure, upgraded barriers, improved entry/exit procedures, and increased monitoring. Patient safety is nonnegotiable.

25. A — A 2week delay to a critical path activity with zero float extends the project by exactly 2 weeks. The project manager must take immediate parallel action: notify the owner, explore expediting, contact alternative sources, evaluate schedule impact, and develop a recovery plan. The narrow timeframe before the scheduled delivery requires simultaneous pursuit of all options.

26. D — The CGL pays \$2,000,000 (peroccurrence limit for this single scaffolding collapse event). The umbrella pays the next \$10,000,000 (up to its limit). Total insurance: \$12,000,000.

The \$14,000,000 judgment exceeds total coverage by \$2,000,000, which becomes the contractor's personal financial responsibility. This scenario illustrates the importance of adequate umbrella limits.

27. B — Bonding capacity: $15 \times \$180,000 = \$2,700,000$. Existing backlog: \$1,900,000. Available: \$800,000. The \$2,200,000 bond request exceeds available capacity by \$1,400,000. The surety will likely deny the bond unless the contractor significantly increases working capital or completes existing projects. Net worth and revenue support the relationship but cannot override the working capital constraint.

28. A — Clerical supervision: $1,950 \text{ units} \times \$7.40 \text{ rate difference} \times 1.05 \text{ EMR} = \$15,152$. Carpentry/roofing: $1,400 \text{ units} \times \$11.50 \text{ rate difference} \times 1.05 \text{ EMR} = \$16,905$. Total additional premium: approximately \$32,057. The audit corrects the classifications to reflect actual job duties, ensuring premiums match the true risk exposure.

29. C — Sutures constitute medical treatment beyond first aid under OSHA's definitions. OSHA's first aid list includes butterfly bandages and wound closure strips but specifically excludes sutures. The case became recordable when the physician applied 4 sutures on the followup visit. The case is recorded with the original injury date, not the suture date.

30. D — Establishments with 20249 employees in highhazard industries (including NAICS 238 — Specialty Trade Contractors) must submit 300A Annual Summary data electronically through OSHA's ITA by March 2 of the following year. With 175 employees in NAICS 238, this employer falls within the electronic reporting requirement.

31. B — The case is recorded as "restricted work" because the worker was reassigned from duties involving vibrating equipment to nonvibrating tasks. Three independent triggers exist: the physician diagnosed workrelated condition (significant diagnosis), the prescribed medication (medical treatment beyond first aid), and the reassignment from regular duties (restricted work activity). The restricted work classification captures the most significant outcome.

32. A — The FMLA requires employers to maintain group health insurance coverage during FMLA leave under the same terms as if the employee were actively working. The employee continues paying their regular share of the premium. The employer cannot cancel, reduce, or modify the coverage during the 6week leave period. This health insurance continuation is one of the FMLA's most important protections.

33. C — Housing provided primarily for the employer's convenience — to ensure workers are available for early shifts at a remote location — is generally excluded from the FLSA regular rate calculation. The housing benefits the employer more than the employee. If the housing were provided as additional compensation (in lieu of higher wages), it would be included. The distinction depends on the primary purpose.

34. D — The strongest age discrimination case combines multiple evidence types: a documented pattern of replacing older workers with younger ones, 8 years of excellent reviews contradicting any performance justification, a "restructuring" rationale that correlates salary with age, and direct statements like "we need fresh blood" and "the team needs to get younger." Together, these create compelling circumstantial and direct evidence.

35. B — Mandatory training required by the employer and directly related to the employee's job is compensable "hours worked" under the FLSA. The safety orientation is required, jobrelated, and conducted during hours the employee could otherwise use for their own purposes. The hour must be paid and counted toward the weekly total for overtime calculation.

36. C — The temporal proximity between the workers' compensation filing and the adverse supervisory actions creates a strong inference of retaliation. The sudden shift — undesirable assignments, public criticism, selective documentation of previously ignored infractions — is a classic retaliation pattern. The employer will have difficulty rebutting this inference without credible alternative explanations for the changed treatment.

37. A — For splitclassification workweeks under DavisBacon, overtime is calculated on the weighted average regular rate. Total straighttime earnings: $(28 \times \$36) + (16 \times \$22) = \$1,360$. Regular rate: $\$1,360 \div 44 = \30.91 . Overtime premium: $\$30.91 \times 0.5 = \$15.45 \times 4 \text{ hours} = \61.82 . Fringe benefits continue at straighttime for each classification's hours.

38. D — Title VII prohibits compensation discrimination based on national origin, and the Equal Pay Act addresses sexbased pay disparities. The backpay calculation: $\$3.00/\text{hour} \times \text{average hours} \times 70 \text{ weeks} \times 6 \text{ workers}$. Liquidated damages under the EPA may double the back pay. Attorney fees and court costs add further exposure. The employer is liable for the payroll processor's actions.

39. B — The FMLA provides intermittent leave to care for a parent with a serious health condition, and accompanying a parent to a medical appointment related to their serious health condition is a qualifying use. The employer has 50 employees (meeting the threshold) and the carpenter has 4 years of tenure (exceeding eligibility). Even a 3hour partialday absence qualifies for FMLA protection.

40. C — Private sector construction employers have broad authority to implement preemployment drug testing because construction is safety-sensitive. The program must be established in writing, applied uniformly to all applicants for the same position, and comply with state laws regarding collection procedures, laboratory certification, and confirmation testing. The employer's safety interest outweighs applicant privacy concerns.

41. A — Percentage complete: $\$1,309,000 \div \$1,870,000 = 70\%$. Earned revenue: $70\% \times \$2,200,000 = \$1,540,000$. Billings: $\$1,400,000$. Underbilled by $\$140,000$. Gross profit: $\$2,200,000 - \$1,870,000 = \$330,000$. Gross margin: $\$330,000 \div \$2,200,000 = 15\%$. The underbilling means the contractor has performed $\$140,000$ more work than invoiced.

42. D — Revised total cost: $\$2,880,000$. Revised profit: $\$3,200,000 - \$2,880,000 = \$320,000$. Revised % complete: $\$1,360,000 \div \$2,880,000 = 47.2\%$. Cumulative profit: $47.2\% \times \$320,000 = \$151,111$. Originally recognized: $50\% \times \$480,000 = \$240,000$. A downward adjustment of approximately $\$88,889$ is needed in Year 2.

43. B — Daily revenue: $\$5,400,000 \div 365 = \$14,795$. Additional capital tied up: $\$14,795 \times 27 \text{ days} = \$399,452$. Approximately $\$400,000$ in working capital is now trapped in uncollected receivables compared to the 45day benchmark. This represents money earned but unavailable for operations, directly straining cash flow and increasing borrowing costs.

44. C — Net worth: $\$2,500,000 - \$1,850,000 = \$650,000$ (exceeds \$50,000 minimum). Working capital: $\$1,100,000 - \$820,000 = \$280,000$. Current ratio: $\$1,100,000 \div \$820,000 = 1.34$. The contractor meets the basic ACLB financial thresholds, provided the statement is audited or reviewed and cash meets the \$25,000 minimum.

45. A — Gross profit: $\$6,600,000 - \$5,610,000 = \$990,000$. Gross margin: 15%. Net income: $\$990,000 - \$594,000 = \$396,000$. Net margin: $\$396,000 \div \$6,600,000 = 6\%$. The 15% gross margin indicates strong project profitability and the 6% net margin reflects healthy bottomline performance after all overhead.

46. D — The IRS reclassifies \$45,000 per shareholder ($\$140,000 - \$95,000$) from distributions to salary. Combined reclassified amount: \$90,000. FICA at 15.3%: $\$90,000 \times 0.153 = \$13,770$. Plus penalties and interest on the underreported payroll taxes. The IRS actively scrutinizes SCorporations with disproportionate salary to distribution ratios.

47. B — The IRS graduated penalty structure assesses 5% on deposits 615 days late. At 12 days past the deadline, the \$24,000 deposit triggers the second tier penalty. Penalty: $\$24,000 \times 5\% = \$1,200$. The 2% rate applies only to 15 day delays and the 10% rate applies to delays exceeding 15 days.

48. C — Section 179 deductions on mixed use assets must be reduced by the personal use percentage. The 90% business use portion: $\$110,000 \times 90\% = \$99,000$ maximum deduction, subject to the Section 179 annual dollar limit and taxable income limitation. The contractor must maintain contemporaneous records documenting business versus personal use.

49. A — Adjusted SE income: $\$175,000 \times 0.9235 = \$161,603$. Since \$161,603 is below the \$168,600 wage base, the full 12.4% SS tax applies: \$20,039. Medicare (2.9%) on \$161,603: \$4,686. No additional Medicare surtax because adjusted SE income is below \$200,000. Total: $\$20,039 + \$4,686 = \$24,725$.

50. D — Partner A's \$25,000 W2 wages consume \$25,000 of the \$168,600 Social Security wage base, leaving approximately \$143,600 for the SS portion of SE tax on their \$440,000 distributive share. The 12.4% SS tax applies to only \$143,600. The 2.9% Medicare applies to the full \$440,000 (after the 92.35% adjustment). The additional 0.9% Medicare surtax applies to adjusted SE income exceeding \$200,000.