

# PRACTICE EXAM 29: ARKANSAS BUSINESS AND LAW SIMULATION (50 QUESTIONS)

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**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 LLC with two members: Member A (70%) and Member B (30%). The LLC has not elected S Corporation taxation and is taxed as a partnership by default. The company earns \$400,000 in net income. Both members work fulltime in the business. How is the \$400,000 taxed at the federal level?

A. The LLC pays entitylevel federal income tax at the 21% corporate rate before distributing the remaining profits to the members

B. The \$400,000 passes through to each member's individual tax return based on ownership percentage — Member A reports \$280,000 and Member B reports \$120,000 — and each member pays selfemployment tax on their distributive share because both are active participants, with no entitylevel federal income tax

C. Both members pay only the 15% qualified dividend tax rate on their distributions because LLC income is classified as passive investment income

D. Only Member A pays selfemployment tax because the majority owner is the designated taxpaying member under default LLC rules

## **DOMAIN: LICENSING (4 Questions)**

2. A contractor holds an unrestricted commercial license with a Building Construction (BU) classification. The contractor is awarded a \$3,800,000 project to construct a new fire station for the city. The project includes standard building construction plus specialized fire apparatus bay doors, an integrated fire alarm and dispatch system, and a diesel exhaust extraction system unique to fire stations. Can the contractor perform all of this work under their BU classification?

A. Yes, because the BU classification covers all components of a building construction project without limitation

B. No, because fire stations are government buildings that require a separate federal contractor classification

C. Yes, but only if the contractor subcontracts all mechanical and electrical components to separately licensed trade contractors

D. The contractor should verify with the ACLB whether any of the specialized systems (fire apparatus doors, integrated dispatch, diesel exhaust extraction) require additional classifications or specialty licenses — while the BU classification covers standard building construction, some specialized fire station systems may require mechanical, electrical, or specialty classifications depending on the ACLB's interpretation

3. A licensed contractor in Arkansas receives a certified letter from the ACLB notifying them that their license is being reviewed for possible revocation. The letter cites three grounds: (1) failure to maintain workers' compensation insurance for a 90day period; (2) two substantiated complaints of substandard workmanship; (3) failure to respond to two previous ACLB inquiries within the required timeframe. The contractor wants to challenge the revocation. What due process rights does the contractor have?

A. The contractor has the right to a hearing before the ACLB where they can present evidence, crossexamine witnesses, and argue their case — administrative due process requires that the Board provide notice of the charges, an opportunity to be heard, and an impartial decision before revoking a professional license

B. The contractor has no right to challenge the ACLB's decision because licensing is a privilege, not a right, and the Board has absolute unreviewable authority

C. The contractor's only option is to file a lawsuit in circuit court because the ACLB does not conduct hearings

D. The contractor can challenge the revocation only by hiring a new qualifying individual and reapplying for a fresh license

4. A contractor holds a residential builder license and wants to perform a \$185,000 renovation on a historic home listed on the National Register of Historic Places. The renovation includes restoring original architectural details, replacing the roof with historically accurate materials, and upgrading the plumbing and electrical systems to current code. Are there any additional requirements beyond the standard residential builder license?

A. No, because the residential builder license covers all residential construction and renovation work without additional requirements

B. Yes, because historic properties require a separate Historic Preservation Contractor license issued by the Arkansas Historic Preservation Program

C. The contractor should research whether Arkansas or the local jurisdiction imposes additional requirements for work on historically registered properties — while the residential builder license authorizes the construction work itself, historic properties may require compliance with Secretary of the Interior's Standards, review by a historic preservation commission, and use of specific materials and techniques that go beyond standard residential construction practices

D. No additional requirements exist, but the contractor must charge at least 25% above standard rates to cover the cost of historically accurate materials

5. The ACLB receives a complaint that a licensed contractor is allowing their license to be used by an unlicensed individual to obtain building permits and perform construction work. The licensed contractor receives a monthly fee from the unlicensed individual in exchange for lending their license. What is this practice called, and what are the consequences?

A. This practice is called "subcontracting" and is a legitimate business arrangement as long as the licensed contractor supervises the work

B. This practice is called "name lending" or "license lending" and is one of the most serious violations the ACLB can pursue — the licensed contractor faces license revocation for allowing an unqualified person to operate under their credentials, and the unlicensed individual faces penalties for performing licensable work without proper authorization

C. This practice is legal as long as the monthly fee is properly documented and reported as income on both parties' tax returns

D. This practice is called "license sharing" and is permitted for residential projects under \$100,000

**DOMAIN: ESTIMATING AND BIDDING (4 Questions)**

6. A contractor estimates: 850 CY structural concrete at \$185/CY; 320 CY slab concrete at \$155/CY; 4% waste on both. Finishing labor: \$2.75/SF on 18,000 SF. What is the total estimated cost?

A. \$264,624, calculated as structural with waste ( $884 \text{ CY} \times \$185 = \$163,540$ ) plus slab with waste ( $332.8 \text{ CY} \times \$155 = \$51,584$ ) plus finishing ( $18,000 \times \$2.75 = \$49,500$ )

B. \$207,150, calculated without the waste factor on either concrete type

C. \$215,124, calculated with waste on concrete but excluding all finishing labor

D. \$300,000, calculated using a single blended rate for both concrete types

7. A public project requires all bidders to submit sealed bids with a list of major subcontractors performing more than 5% of the contract value. After the bid opening, the apparent low bidder wants to substitute their listed mechanical subcontractor with a different firm that offered a lower price after the bids were opened. Under public bidding law, is this substitution permitted?

A. Yes, because the contractor has the right to select any qualified subcontractor after the bid opening

B. Yes, but only if the substitute subcontractor's price is at least 10% lower than the listed subcontractor's price

C. No, because postbid substitution of listed subcontractors is generally prohibited in public bidding — the subcontractor listing requirement exists to prevent bid shopping (soliciting lower prices from subcontractors after the bid is opened using the winning bid as leverage), and most jurisdictions allow substitution only for cause such as the listed subcontractor's failure to execute a subcontract, loss of license, or default

D. No, but the contractor can use the substitute subcontractor if both the listed and substitute subcontractors agree in writing

8. A contractor reviews the bid documents for a municipal water treatment plant project and discovers that the specifications reference three different concrete mix design standards in three different specification sections — one references ACI 31814, another references ACI 31819, and a third references ACI 31822. Each edition has different requirements for mix design, testing, and acceptance criteria. The bid deadline is in 5 days. What should the estimator do?

A. Price the project using the oldest standard (ACI 31814) because it has the least stringent requirements and produces the lowest bid

B. Price the project using the average requirements of all three standards as a compromise approach

C. Ignore the specification conflicts and price based on the estimator's standard concrete practices

D. Submit an RFI to the architect before the bid deadline identifying the conflicting ACI edition references and requesting clarification on which standard governs — then price based on the architect's response, or if no response is received before the deadline, price the most current and most stringent edition (ACI 31822) to avoid underpricing

9. A contractor's estimator needs to calculate the overhead allocation for a project with \$1,350,000 in direct costs. The contractor's annual overhead is \$405,000 on annual direct cost volume of \$2,700,000. The contractor targets a 5% net profit margin on selling price. What is the correct selling price?

A. \$1,350,000 with no overhead or profit

B. \$1,634,211, calculated by allocating overhead at 15% (\$202,500), adding to direct costs (\$1,552,500 total cost), and dividing by 0.95 to achieve exactly 5% margin on selling price

C. \$1,552,500, calculated with overhead but without the profit margin adjustment

D. \$1,755,000, calculated by applying a flat 30% combined markup to direct costs

#### **DOMAIN: CONTRACT MANAGEMENT (8 Questions)**

10. A contractor on a fixed-price commercial project discovers that the specified exterior brick veneer has been discontinued by the manufacturer. The contractor identifies three alternative bricks that appear to match the original specification's color, size, and performance requirements. The contract documents do not include an "or equal" clause for masonry materials. What must the contractor do?

A. Submit a formal substitution request to the architect identifying the discontinuation and presenting the three alternatives with samples, technical data, and cost comparisons — without an "or equal" clause, only the architect has authority to approve a substitute product, and the contractor cannot install any alternative without formal written approval

B. Select the closest visual match and install it without notification because the original product is no longer available

C. Exclude the brick veneer from the project scope and issue a deductive change order

D. Delay the entire exterior envelope until the manufacturer resumes production of the discontinued brick

11. A general contractor on a \$5,000,000 commercial project receives monthly payment applications from their electrical subcontractor. The GC's project manager notices that the electrical subcontractor has been billing ahead of actual progress for three consecutive months — claiming 65% complete when only approximately 50% of the electrical work is installed. The cumulative overbilling is approximately \$95,000. What should the project manager do?

A. Accept the subcontractor's billing because the GC will reconcile the overpayment at the end of the project through retainage adjustments

B. Continue including the subcontractor's inflated numbers in the GC's application to the owner to maintain consistent payment flow

C. Wait until the subcontractor reaches substantial completion to address the billing discrepancy in a single reconciliation

D. Immediately adjust the subcontractor's current payment application to reflect actual progress, notify the subcontractor in writing of the overbilling pattern, and implement enhanced verification procedures — the GC has a duty to verify billing accuracy before including subcontractor amounts in applications to the owner, and allowing continued overbilling exposes the GC to breach of contract and potential fraud liability

12. A project owner issues a change order adding \$165,000 of additional structural reinforcement to a commercial building. The contractor will subcontract \$130,000 of steel reinforcement work and selfperform \$35,000 of concrete modifications. The contract allows 15% markup on selfperformed work and 8% on subcontracted work. What is the total billable change order amount?

A. \$165,000 with no markup because the combined costs equal the change order estimate

B. \$189,750, calculated at 15% on the full \$165,000

C. \$180,650, calculated as selfperformed ( $\$35,000 \times 1.15 = \$40,250$ ) plus subcontracted ( $\$130,000 \times 1.08 = \$140,400$ )

D. \$173,250, calculated by applying a blended 5% markup to the total

13. A contractor on a hospital renovation project encounters asbestos pipe insulation that was not identified in the prerenovation environmental assessment provided with the bid documents. The assessment stated: "No asbestoscontaining materials were identified in the renovation areas." Testing confirms the pipe insulation contains chrysotile asbestos. The abatement cost is \$85,000. Under the differing site conditions clause, is this the owner's responsibility?

A. Yes, because the environmental assessment — a contract document — represented the renovation areas as asbestosfree, and the actual condition (asbestos present) differs materially from what was represented, creating a Type I differing site condition that entitles the contractor to additional compensation through a change order

B. No, because experienced renovation contractors should always assume asbestos exists in older buildings

C. Yes, but the contractor can recover only the testing costs, not the abatement costs

D. No, because environmental assessments are informational documents that do not create binding representations

14. A contractor working on a commercial project receives a written notice from the owner stating: "Effective immediately, all construction workers must provide proof of COVID19 vaccination or submit to weekly testing before entering the jobsite. This requirement was not included in the original contract." Several of the contractor's workers refuse vaccination and weekly testing. The contractor estimates compliance will cost \$28,000 in testing fees and administrative time over the project duration. What should the contractor do?

A. Terminate all unvaccinated workers and hire replacements who are vaccinated to comply with the owner's directive

B. Respond in writing acknowledging the new requirement, submit a change order for the \$28,000 compliance cost, and document that this requirement was not in the original contract — the owner's postcontract directive to implement a testing program constitutes a change to the contract conditions, and the contractor should not bear the cost of a requirement that did not exist when the project was priced

C. Ignore the requirement because it was not in the original contract and is therefore unenforceable

D. Comply immediately and absorb the \$28,000 cost as a normal project condition

15. A construction contract includes a "time is of the essence" clause and a liquidated damages provision of \$4,000 per calendar day for late completion. The contractor finishes 15 days late. The owner suffered no actual damages during the 15day period — the building sat vacant. The contractor argues the liquidated damages should be reduced or eliminated because the owner suffered no actual harm. Is the contractor's argument likely to succeed?

A. Yes, because liquidated damages must be proportional to the owner's actual, provable losses

B. Yes, because the contractor acted in good faith and the 15day delay was not intentional

C. No, but the liquidated damages are automatically reduced by 50% when the owner demonstrates no actual financial loss

D. No, because a properly drafted liquidated damages clause is enforceable as a preagreed estimate of damages that are difficult to calculate at contracting time — the contractor agreed to the \$4,000/day rate when signing the contract, and the fact that actual damages were zero does not void the clause unless it is found to be an unenforceable penalty

16. A subcontractor on a commercial project provides a conditional lien waiver for \$72,000 in exchange for the August progress payment. The general contractor receives the conditional waiver but does not actually pay the \$72,000. The GC includes the conditional waiver in their payment application to the owner, representing that the subcontractor has been paid. What legal issues does this create?

A. No issues because conditional waivers are administrative documents without legal effect

B. Minor documentation issues that can be corrected by backdating the payment when funds become available

C. Serious legal issues — the conditional waiver becomes effective only upon actual receipt of the stated payment, and representing to the owner that the subcontractor has been paid when they have not constitutes a material misrepresentation that may constitute fraud, breach of the prime contract, and potential criminal liability

D. Issues limited to an administrative fee assessed by the title company handling the project

17. A contractor completes a commercial project and the architect certifies final completion on June 1. The contract requires the owner to release retainage within 30 days of final completion certification. The retainage amount is \$165,000. By August 15 — 75 days past the deadline — the owner has not paid despite three written demands from the contractor. What is the contractor's most effective next step?

A. Send a final demand via certified mail with a specific 10day deadline, stating that failure to pay will result in filing a mechanics' lien (if the deadline has not expired), initiating the contract's dispute resolution process, and pursuing interest on the overdue amount — this escalated notice converts passive waiting into active enforcement

B. Continue sending monthly demand letters and wait for the owner to pay voluntarily

C. File a complaint with the ACLB requesting the Board order the owner to release the retainage

D. Accept the delay because owners commonly hold retainage beyond the contractual deadline without consequences

18. A contractor on a timeandmaterials emergency repair project bills the owner for 260 hours of electrician labor at \$85 per hour over a 4week period. The owner's representative reviews

the daily time sheets and finds that 35 hours lack the required dual signature (both the contractor's superintendent and the owner's representative). These 35 hours occurred during evening shifts when the owner's representative had left for the day. What is the likely billing outcome?

A. The owner pays all 260 hours because the contractor's superintendent signature alone is sufficient documentation

B. The owner will likely pay the 225 documented hours and dispute the 35 unsigned hours — on T&M contracts, daily time sheets signed by both parties are the primary billing evidence, and the contractor must prove the disputed hours through alternative documentation such as security logs, equipment usage records, or material consumption data that corroborates the claimed evening shift work

C. The owner must pay all 260 hours plus a premium for evening work because overtime rates automatically apply to evening shifts

D. The dispute is automatically resolved in favor of the contractor because the owner's representative chose to leave before the evening shift ended

19. A project architect issues a bulletin changing the building's exterior cladding from fiber cement panels to aluminum composite panels — a significant material upgrade. The architect states the change is an "aesthetic enhancement" requested by the owner. The cost difference is \$120,000. The contractor submits a change order for \$120,000. The owner argues the contractor should absorb the cost because "the architect has authority to make design modifications." Under standard contract provisions, who bears this cost?

A. The contractor, because the architect's design authority extends to material changes during construction

B. The architect, because aesthetic enhancements are design decisions funded through the architect's contingency

C. The cost should be split between the contractor, owner, and architect in equal thirds

D. The owner bears the cost through the change order because changing the cladding material from what was specified in the original contract documents constitutes a scope change — the contractor priced fiber cement panels as specified, and the upgrade to aluminum composite panels is additional scope regardless of whether the architect or the owner initiated the change

20. A general contractor on a commercial project maintains a comprehensive daily report system. The project manager reviews 6 months of daily reports and identifies the following documentation pattern: every Friday report includes a weather summary, every Monday report includes a crew count, and every Wednesday report includes an RFI status update. However, none of the daily reports include documentation of owner or architect site visits, verbal

directives, or design discussions that occurred during construction. What risk does this documentation gap create?

- A. No risk because weather summaries, crew counts, and RFI updates are the only required elements of daily reports
- B. The risk is limited to punch list disputes because daily reports are relevant only during the closeout phase
- C. Significant risk — the failure to document owner and architect site visits, verbal directives, and design discussions creates gaps in the contemporaneous record that weaken the contractor's position on change order claims, delay claims, and dispute resolution, because the contractor cannot prove what was said, directed, or discussed during these interactions without daily report documentation
- D. The risk is minimal because the RFI log captures all design-related communications and eliminates the need for daily report documentation of verbal discussions

#### **DOMAIN: PROJECT MANAGEMENT (6 Questions)**

21. A project manager on an \$8,000,000 commercial project is at the 50% completion mark. The earned value analysis shows: BAC = \$8,000,000; PV = \$4,000,000; EV = \$3,600,000; AC = \$3,800,000. The project manager calculates: SV = -\$400,000; CV = -\$200,000; SPI = 0.90; CPI = 0.947. What is the most concerning metric, and why?

- A. The SPI of 0.90 is the most concerning metric because at the 50% completion mark, being 10% behind schedule means the project has completed only 45% of planned work — schedule deficits at the midpoint are progressively harder to recover because fewer activities remain to accelerate, and the declining schedule performance will compound through the remaining 50% of the project
- B. The CV of -\$200,000 is the most concerning because cost overruns are always more significant than schedule delays
- C. All four metrics are equally concerning and no single metric takes priority over the others
- D. None of the metrics are concerning because both SPI and CPI are above 0.90, which is within acceptable project management tolerance

22. A contractor's superintendent discovers that the plumbing subcontractor installed PVC drain piping in a location where the specification requires cast iron piping. The specification states: "Cast iron piping shall be used for all drain, waste, and vent piping within 10 feet of any

occupied space to minimize noise transmission." The PVC piping was installed in a ceiling cavity directly above a private office suite. Approximately 120 feet of PVC has been installed where cast iron is required. What should the superintendent do?

A. Accept the PVC installation and add acoustic insulation wrap around the pipes to achieve equivalent noise reduction

B. Stop the plumbing subcontractor, document the nonconforming installation, notify the architect, and require the subcontractor to remove the PVC and install cast iron at the subcontractor's expense — the specification requires cast iron within 10 feet of occupied space specifically for noise control, and PVC drain piping transmits significantly more noise than cast iron, which would be directly audible in the private office suite below

C. Document the substitution in the asbuilt drawings and address noise complaints through the warranty period

D. Allow the PVC to remain and provide the building owner with a credit for the material cost difference between PVC and cast iron

23. A project schedule shows the following critical path: Site Work (10 days) → Foundation (15 days) → Steel (22 days) → Roofing (9 days) → MEP RoughIn (17 days) → Drywall (11 days) → Finishes (16 days) → Closeout (5 days). Total: 105 days. A 7day weather delay occurs during Site Work. Additionally, the owner issues a change order adding 5 days to the Steel Erection activity. What is the revised project duration?

A. 112 days, calculated by adding only the 7day weather delay to the original schedule

B. 110 days, calculated by adding only the 5day steel change order to the original schedule

C. 105 days, unchanged because the weather delay and the steel addition occur on different activities and offset each other

D. 117 days, calculated as the original 105 days plus the 7day weather delay plus the 5day steel addition — both additions are on the critical path, they occur on different activities at different times, and each independently extends the project completion date

24. A contractor managing a renovation in an occupied government building must replace the main sewer line running beneath the occupied firstfloor offices. The replacement requires cutting through the existing slab, excavating the old pipe, installing the new pipe, backfilling, and patching the slab. The work will generate significant noise, vibration, and dust directly beneath the occupied offices. The contract requires the contractor to maintain building operations during construction. How should the contractor approach this work?

- A. Perform the sewer replacement during normal business hours and provide earplugs to the office workers above
- B. Request the building manager to close the first floor permanently until the sewer replacement is complete
- C. Phase the work into short segments performed during evenings or weekends, install temporary dust barriers beneath the slab openings, use vibrationdampening techniques for the concrete cutting, and coordinate each phase with the building manager to minimize disruption — submitting a change order if offhours work was not contemplated in the original contract
- D. Reroute the sewer line around the building exterior to avoid working beneath the occupied offices

25. A contractor's threeweek lookahead schedule identifies that the concrete pour for the thirdfloor elevated slab is scheduled for next Thursday. The lookahead also shows that the posttensioning tendon installation — which must be completed before the concrete pour — is running 2 days behind schedule. The posttensioning subcontractor states they cannot accelerate their work because they are waiting for a tendon anchorage delivery scheduled for Monday. What should the project manager do?

- A. Verify the tendon delivery date with the supplier, confirm the posttensioning subcontractor can complete installation by Wednesday (one day before the Thursday pour), coordinate with the concrete supplier to confirm the Thursday delivery, and develop a contingency plan to postpone the pour to the following Monday if the tendons are not installed in time — because pouring concrete over incomplete posttensioning work would create a structural deficiency
- B. Proceed with the Thursday concrete pour regardless of the posttensioning status because the tendons can be installed after the concrete is placed
- C. Cancel the entire thirdfloor slab and redesign the structure to eliminate posttensioning
- D. Postpone the pour by 2 weeks to provide maximum buffer for the tendon installation

**DOMAIN: INSURANCE AND BONDING (3 Questions)**

26. A contractor's CGL policy has a \$1,000,000 peroccurrence limit and a \$2,000,000 general aggregate. Four incidents occur: \$400,000; \$850,000; \$600,000; \$500,000. Total claims: \$2,350,000. How are the claims covered?

- A. CGL pays all four claims in full because the total does not exceed the combined limits
- B. CGL pays \$2,000,000 and the contractor is exposed for \$350,000

C. CGL pays only the first two claims and denies the remaining two because the aggregate is exhausted

D. CGL pays: Incident 1 = \$400,000 (within peroccurrence); Incident 2 = \$850,000 (within peroccurrence); Incident 3 = \$600,000 (within peroccurrence); but the aggregate is now at \$1,850,000 — Incident 4 = only \$150,000 (remaining aggregate), leaving \$350,000 of Incident 4 uncovered, which must be paid by the umbrella policy or becomes the contractor's personal exposure

27. A surety evaluates a contractor for a new bond. The contractor's financial statements show working capital of \$220,000, net worth of \$710,000, and existing bonded backlog of \$2,800,000. The surety uses a  $15\times$  working capital multiplier. What bonding capacity remains available?

A. The total capacity is \$3,300,000 ( $15 \times \$220,000$ ) and with \$2,800,000 committed, only \$500,000 remains — the contractor has limited room for additional bonded work and must either increase working capital or complete existing projects before the surety would approve a significant new bond

B. \$3,300,000 is available because the existing backlog does not reduce the contractor's total capacity

C. \$710,000 is available because net worth — not working capital — determines available bonding capacity

D. \$1,500,000 is available because the surety uses net worth minus working capital as the available capacity formula

28. A contractor's workers' compensation carrier provides the annual EMR calculation. The contractor's EMR has been: Year 1 = 1.25; Year 2 = 1.10; Year 3 = 0.95; Year 4 (current) = 0.85. The annual base premium at EMR 1.0 is \$280,000. What is the cumulative financial impact of improving the EMR from 1.25 to 0.85 over four years?

A. \$28,000 total savings because the EMR improvement affects only the current year's premium

B. The savings are limited to the difference between Year 1 and Year 4 premiums only

C. The cumulative impact includes the annual premium savings at each year's EMR — Year 1: \$350,000 (1.25); Year 2: \$308,000 (1.10); Year 3: \$266,000 (0.95); Year 4: \$238,000 (0.85) — total premiums paid over 4 years = \$1,162,000, versus \$1,120,000 at a constant 1.0 EMR, showing that early high premiums offset later savings, but the Year 4 savings of \$42,000 annually ( $\$280,000 - \$238,000$ ) compounds going forward, and the 0.85 EMR opens bidding opportunities on safetyconscious projects

D. \$112,000 total savings calculated as the difference between Year 1 and Year 4 premiums multiplied by 4 years

**DOMAIN: OSHA RECORDKEEPING (3 Questions)**

29. A construction worker is lifting a heavy steel beam with a crew when they feel a sharp pain in their lower back. The worker stops lifting and reports the injury to the foreman. The site medic applies an ice pack and the worker rests for 30 minutes. The pain persists, so the foreman sends the worker to an occupational health clinic. The physician examines the worker, takes lumbar spine Xrays (negative for fracture), prescribes overthecounter naproxen, and applies a nonrigid elastic back support. The worker returns to full duty the next day. Is this case OSHA recordable?

A. Yes, because back injuries from lifting are automatically recordable under OSHA's musculoskeletal disorder provisions

B. No, because all treatments received — ice pack, OTC naproxen, diagnostic Xrays, and a nonrigid elastic back support — are classified as first aid under OSHA definitions, and the worker returned to full duty with no restrictions or lost time

C. Yes, because the physician examination at the occupational health clinic constitutes medical treatment beyond first aid

D. Yes, because any injury that prevents the worker from continuing their task for more than 15 minutes triggers recordability

30. An employer with 200 employees in the construction industry reviews their electronic reporting obligations. The company has multiple active jobsites. Under current OSHA electronic reporting rules, what must this employer submit?

A. Complete OSHA 300 Logs for all jobsites within 7 days of each recordable incident

B. All 300 Logs, 300A Summaries, and 301 forms electronically on a quarterly basis

C. No electronic submission because construction companies with fewer than 250 employees are exempt

D. 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 designated highhazard industries (including construction) must submit 300A summary data annually

31. A construction worker develops contact dermatitis on both hands after handling a new brand of concrete sealer. The worker visits a physician who diagnoses the condition as workrelated, prescribes a topical corticosteroid cream, and recommends the worker wear chemicalresistant gloves when handling sealers. The worker returns to full duty the next day wearing the recommended gloves. Is this case OSHA recordable?

A. Yes, because the prescribed corticosteroid cream is a prescription medication constituting medical treatment beyond first aid — additionally, the physiandiagnosed workrelated skin condition is a significant illness, and either trigger independently makes the case recordable regardless of the worker's return to full duty

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

C. No, because contact dermatitis from chemical exposure is classified as an environmental condition exempt from OSHA recording

D. Yes, but only if the employer failed to provide chemicalresistant gloves before the exposure occurred

#### **DOMAIN: PERSONNEL REGULATIONS (8 Questions)**

32. A contractor with 55 employees has a worker who has been employed for 3 years. The worker's 10yearold child is diagnosed with leukemia requiring chemotherapy every other week for 6 months. The worker requests intermittent FMLA leave to accompany the child to treatments. Under the FMLA, is this request covered?

A. No, because FMLA intermittent leave is available only for the employee's own medical condition

B. No, because FMLA leave for a child's medical treatment requires continuous leave of at least one full week per absence

C. Yes, because the FMLA provides intermittent leave when medically necessary to care for a son or daughter with a serious health condition — leukemia requiring ongoing chemotherapy qualifies as a serious health condition, the employer has 55 employees (exceeding the threshold), and the worker's 3year tenure exceeds the eligibility requirement

D. Yes, but only for the first 4 weeks of treatment because FMLA intermittent leave for child care is capped at 4 weeks

33. A nonexempt concrete finisher earns \$36.00 per hour and works 50 hours during a workweek. The employer provides a \$240 nondiscretionary weekly completion bonus for finishing all assigned concrete pours within the scheduled timeframe. Under the FLSA, what is the total gross pay?

- A. \$2,040.00, with no overtime premium because the bonus replaces the overtime obligation
- B. \$2,070.00, calculated with overtime at the base rate only ( $\$36 \times 1.5 \times 10 = \$540$ ) plus straighttime ( $\$36 \times 40 = \$1,440$ ) plus bonus (\$240) minus some adjustment
- C. \$1,800.00, calculated at straighttime for 40 hours without the bonus or overtime
- D. \$2,244.00, calculated as straighttime plus bonus (\$2,040.00) plus overtime premium ( $\$40.80$  regular rate  $\times 0.5 \times 10$  hours = \$204.00), where the \$240 bonus is included in the regular rate ( $\$2,040 \div 50 = \$40.80$ )

34. An employer with 40 employees has a written antidiscrimination policy. A supervisor makes derogatory comments about a worker's religious practices — specifically mocking the worker's daily prayer schedule — in front of the work crew on three separate occasions over two weeks. The worker reports the harassment to HR. HR investigates and confirms the supervisor's conduct through witness statements. What constitutes an appropriate employer response?

- A. A verbal counseling session with the supervisor reminding them of the antidiscrimination policy
- B. Immediate corrective action proportional to the severity — which may include a formal written warning or suspension for the supervisor, mandatory antiharassment training, reassignment to prevent further contact between the supervisor and the affected worker if necessary, and documentation of the corrective measures taken, because the employer must demonstrate it took prompt and effective action to stop the religious harassment
- C. Termination of the affected worker's employment to remove them from the hostile environment
- D. No action is required because religious teasing between coworkers is protected speech under the First Amendment

35. An employer with 30 employees has a worker who files a workers' compensation claim for carpal tunnel syndrome. The worker's physician recommends surgery with an estimated 8week recovery. The employer's workers' compensation carrier accepts the claim. The employer then demotes the worker from journeyman electrician to apprentice helper at a 40% pay reduction, stating "we need someone who can work full speed in the journeyman role." Under workers' compensation antiretaliation law, what is the employer's exposure?

- A. Significant exposure — demoting a worker and reducing their pay by 40% immediately after filing a workers' compensation claim creates a strong inference of retaliation, and the temporal proximity between the filing and the adverse action shifts the burden to the employer

to prove the demotion was motivated by legitimate nonretaliatory business reasons unrelated to the claim

B. No exposure because the employer has a legitimate business need for a fully functional journeyman electrician

C. Exposure limited to the 40% pay difference for the period between the demotion and the worker's return from surgery

D. No exposure because demotions are classified as lateral transfers rather than adverse employment actions

36. A contractor operating on a DavisBacon covered project employs masons who work 46 hours during a workweek. The prevailing wage specifies mason wages of \$38.00/hour plus \$17.00/hour in fringe benefits. One mason also receives a \$175 nondiscretionary weekly inclement weather bonus. How must the overtime be calculated?

A. Overtime at 1.5 times the combined wage and fringe ( $\$55.00 \times 1.5$ ) for 6 hours

B. Overtime at 1.5 times only the base wage ( $\$38.00 \times 1.5 = \$57.00$ ) for 6 hours without the weather bonus

C. The overtime premium applies to the cash wage plus the prorated weather bonus, while the fringe continues at straighttime — regular rate =  $(\$38.00 \times 46 + \$175) \div 46 = \$41.80$ ; overtime premium =  $\$41.80 \times 0.5 = \$20.90 \times 6 = \$125.42$ ; fringe at \$17.00 for all 46 hours

D. No overtime because DavisBacon workers receiving weather bonuses are exempt from overtime requirements

37. An employer terminates a worker for refusing to perform work in a trench deeper than 6 feet without a protective system (sloping, shoring, or trench box). The worker reported the condition to OSHA before refusing to enter. The employer states the termination was for "failure to follow supervisor's instructions." Under OSHA Section 11(c), what is the likely outcome?

A. The employer will prevail because the worker should have entered the trench and filed the complaint afterward

B. The outcome depends on whether OSHA actually issues a citation for the trench violation within 30 days

C. The employer will prevail because Section 11(c) protection applies only to written complaints, not to work refusals

D. The worker will likely prevail because OSHA Section 11(c) prohibits retaliation against employees who report safety violations or refuse work they reasonably believe poses imminent danger — an unprotected trench deeper than 6 feet violates OSHA excavation standards and creates a recognized lethal hazard, making the refusal a protected safety activity

38. An employer with 60 employees has a worker who requests FMLA leave to care for their elderly mother who requires supervision and assistance following a stroke. The mother lives 150 miles away. The worker requests 4 weeks of continuous leave to relocate temporarily and provide daily care. The worker has been employed for 5 years. Under the FMLA, is this leave request covered?

A. No, because FMLA leave to care for a parent is available only if the parent resides in the same household as the employee

B. Yes, because the FMLA provides up to 12 weeks of leave to care for a parent with a serious health condition — a stroke requiring ongoing supervision and assistance qualifies as a serious health condition, the employer has 60 employees (exceeding the threshold), and the worker's 5-year tenure exceeds the eligibility requirement, with no geographic proximity requirement for parental care

C. No, because the 150-mile distance disqualifies the leave request under FMLA's geographic limitations

D. Yes, but only for 2 weeks because FMLA parental care leave is limited to the initial hospitalization period

39. An employer's I-9 compliance audit reveals that 20 current employees have I-9 forms where Section 1 (employee information) is completed but Section 2 (employer verification) is entirely blank — the HR representative forgot to complete the employer portion. Under IRCA, what is the employer's exposure?

A. Significant exposure — each I-9 with an incomplete Section 2 constitutes a separate violation subject to civil penalties, because the employer is required to examine the employee's identity and work authorization documents and complete Section 2 within 3 business days of hire, and the complete absence of employer verification on 20 forms represents a systematic compliance failure

B. No exposure because Section 1 completion by the employee is the only mandatory requirement

C. Exposure limited to a single warning letter because incomplete I-9 forms are classified as minor paperwork deficiencies

D. Exposure only for employees hired within the past 12 months because older I-9 forms are beyond the enforcement window

40. An employer with 45 employees has a worker who has been on FMLA leave for 12 weeks following back surgery. The worker's physician clears them to return with a permanent

restriction: no lifting more than 30 pounds. The worker's regular job as a framing carpenter requires lifting lumber weighing up to 80 pounds. Under the ADA, what must the employer evaluate?

- A. Whether the worker can be immediately terminated because they cannot perform the essential function of lifting 80 pounds
- B. Whether the lifting restriction qualifies the worker for Social Security Disability benefits, which would automatically terminate the employment relationship
- C. Whether the 30pound permanent lifting restriction can be reasonably accommodated — potential accommodations include reassignment to an available vacant position (trim carpentry, cabinet installation, layout and measuring), providing mechanical lifting aids, or restructuring the framing carpenter role so that heavy lifting is performed by other crew members, and the employer must engage in the interactive process before concluding that accommodation is impossible
- D. Whether to offer the worker a severance package equal to 6 months' salary in exchange for a voluntary resignation

#### **DOMAIN: FINANCIAL MANAGEMENT (5 Questions)**

41. A contractor's WIP report shows Project Lambda: revised contract \$2,400,000; estimated total cost \$2,040,000; costs to date \$1,428,000; billings to date \$1,760,000. What are the percentage complete, over/under billing, and gross margin?

- A. 60% complete, underbilled by \$80,000, gross margin 12%
- B. 75% complete, billings match earned revenue, gross margin 18%
- C. 70% complete, underbilled by \$80,000, gross margin 20%
- D. 70% complete ( $\$1,428,000 \div \$2,040,000$ ), overbilled by \$80,000 (billings of \$1,760,000 minus earned revenue of \$1,680,000), with a 15% estimated gross profit margin ( $\$360,000 \div \$2,400,000$ )

42. A contractor uses the percentageofcompletion method on a \$3,000,000 project with estimated costs of \$2,550,000. At end of Year 1, costs incurred total \$1,275,000. At end of Year 2, cumulative costs total \$2,040,000. Estimated total cost has not changed. What is the revenue recognized in Year 2 only?

- A. \$1,500,000, equal to Year 1 revenue repeated
- B. \$900,000, calculated as Year 2 cumulative revenue (\$2,400,000 at 80%) minus Year 1 revenue (\$1,500,000 at 50%) — revenue is recognized incrementally
- C. \$2,400,000, representing cumulative revenue through Year 2 without subtracting Year 1
- D. \$765,000, equal to costs incurred in Year 2 only

43. A contractor's cash flow analysis shows: beginning cash \$60,000; collections \$590,000; retainage releases \$25,000; credit line draws \$85,000. Outflows: payroll \$410,000; materials/subcontractors \$275,000; overhead \$62,000; equipment \$28,000; taxes \$18,000. What is the projected ending cash position?

- A. Negative \$33,000, calculated as total inflows (\$760,000) minus total outflows (\$793,000) — the contractor faces a \$33,000 shortfall requiring additional financing
- B. Positive \$760,000, using only the inflow total
- C. Positive \$60,000, unchanged from beginning
- D. Negative \$18,000, calculated by excluding equipment payments

44. A contractor's balance sheet shows: current assets \$920,000; current liabilities \$680,000; total assets \$2,150,000; total liabilities \$1,580,000. The surety's multiplier is 15 times working capital. Existing bonded backlog is \$2,600,000. A new project requires a \$1,500,000 bond. Can the contractor obtain it?

- A. Yes, because the total capacity exceeds the combined bonded work
- B. Yes, because net worth of \$570,000 supports the bond
- C. The bonding capacity is \$3,600,000 ( $15 \times \$240,000$ ), and with \$2,600,000 committed, \$1,000,000 remains — insufficient for the \$1,500,000 bond by \$500,000, requiring increased working capital of approximately \$33,333 or completion of existing projects
- D. No, because the debttoequity ratio disqualifies the contractor

45. A contractor's income statement shows: total revenue \$7,400,000; cost of construction \$6,290,000; G&A expenses \$666,000. What are the gross profit, gross margin, net income, and net margin?

- A. Gross profit \$666,000 (9%), net income \$0 (0%)

B. Gross profit \$1,110,000 (15%), net income \$444,000 (6%) — calculated as: revenue minus cost = \$1,110,000 gross profit;  $\$1,110,000 \div \$7,400,000 = 15\%$  gross margin;  $\$1,110,000$  minus  $\$666,000 = \$444,000$  net income;  $\$444,000 \div \$7,400,000 = 6\%$  net margin

C. Gross profit \$1,110,000 (15%), net income \$666,000 (9%)

D. Gross profit \$740,000 (10%), net income \$74,000 (1%)

**DOMAIN: TAX LAWS (5 Questions)**

46. A contractor organized as an SCorporation has one shareholder who works fulltime. The company earns \$380,000. The shareholder takes a salary of \$90,000 and a distribution of \$290,000. The IRS determines a reasonable salary is \$150,000. What is the approximate additional FICA tax exposure?

A. \$0, because SCorporation distributions are exempt from FICA reclassification

B. \$44,370, calculated at 15.3% on the full \$290,000 distribution

C. \$4,590, calculated at 15.3% on only \$30,000

D. Approximately \$9,180, calculated at 15.3% on the \$60,000 reclassified from distributions to salary ( $\$150,000 - \$90,000$ ), plus penalties and interest on the underreported payroll taxes

47. An employer makes their payroll tax deposit 4 days late. The deposit amount is \$20,000. Under the IRS graduated penalty structure, what penalty applies?

A. 2%, applicable to deposits 15 days late — the \$20,000 deposit that is 4 days past the deadline triggers the lowest-tier penalty rate, resulting in a \$400 penalty

B. 5%, applicable to deposits 615 days late

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

D. No penalty because 4-day late deposits fall within the IRS automatic grace period

48. A contractor organized as a CCorporation earns \$500,000 in taxable income and pays 21% corporate tax (\$105,000). The corporation distributes \$250,000 as dividends to the sole shareholder at the 15% qualified dividend rate. What is the effective combined tax rate on the \$250,000 distributed?

A. 21%, representing only the corporate tax rate

B. 15%, representing only the shareholder's dividend tax rate

C. 36%, calculated as corporate tax on the distributed amount ( $\$250,000 \times 21\% = \$52,500$ ) plus dividend tax ( $\$250,000 \times 15\% = \$37,500$ ) =  $\$90,000$  total tax  $\div$   $\$250,000 = 36\%$  effective combined rate

D. 42%, calculated by simply adding  $21\% + 15\% +$  a 6% state surcharge

49. A selfemployed contractor earns \$200,000 in net SE income with \$45,000 in W2 income from a parttime position. The Social Security wage base is \$168,600. After the 92.35% adjustment, adjusted SE income is approximately \$184,700. What is the approximate selfemployment tax?

A. \$30,600, at flat 15.3% without adjustments

B. Approximately \$20,682 — Social Security 12.4% on \$123,600 ( $\$168,600 - \$45,000$  W2) = \$15,326; Medicare 2.9% on full \$184,700 = \$5,356; no additional surtax because adjusted SE income of \$184,700 is below \$200,000; total  $\approx$  \$20,682

C. \$15,326, using only the Social Security portion

D. \$28,280, at 15.3% on the adjusted income without the W2 offset

50. A contractor organized as a partnership earns \$650,000. Partner A (60%) has a \$390,000 distributive share with no W2 income. The Social Security wage base is \$168,600. After the 92.35% adjustment, adjusted SE income is approximately \$360,165. What is the approximate selfemployment tax?

A. \$59,670, at flat 15.3% on \$390,000

B. \$20,906, only Social Security without Medicare

C. \$25,000, simplified estimate

D. Approximately \$32,792 — Social Security 12.4% on \$168,600 (wage base cap) = \$20,906; Medicare 2.9% on full \$360,165 = \$10,445; additional Medicare surtax 0.9% on \$160,165 (adjusted income exceeding \$200,000) = \$1,441; total  $\approx$  \$32,792

## Practice Exam 29: Answer Key and Explanations

**1. B** — A multimember LLC taxed as a partnership pays no entitylevel federal income tax. The \$400,000 passes through to each member's individual return based on ownership: Member A reports \$280,000 and Member B reports \$120,000. Because both members are active participants, each pays selfemployment tax on their distributive share — unlike SCorporation distributions, partnership income for active members is fully subject to SE tax.

**2. D** — While the BU classification covers standard building construction, specialized fire station systems (apparatus bay doors, integrated dispatch, diesel exhaust extraction) may require additional classifications or specialty licenses. The contractor should verify with the ACLB before proceeding because performing work outside authorized classifications is a licensing violation regardless of holding a valid license in another category.

**3. A** — Administrative due process requires notice of charges, an opportunity to be heard, and an impartial decision before revoking a professional license. The contractor has the right to a hearing where they can present evidence, cross-examine witnesses, and argue their case. Licensing is a property interest protected by due process, and the ACLB cannot revoke it without following proper administrative procedures.

**4. C** — While the residential builder license authorizes the construction work itself, historic properties listed on the National Register may require compliance with the Secretary of the Interior's Standards, review by a local historic preservation commission, and use of specific historically appropriate materials and techniques. The contractor should research applicable state and local requirements before beginning work on a registered historic property.

**5. B** — Name lending or license lending is one of the most serious violations the ACLB can pursue. The licensed contractor faces license revocation for allowing an unqualified person to operate under their credentials and obtain building permits fraudulently. The unlicensed individual faces penalties for performing licensable work without authorization. Both parties are held accountable for undermining the licensing system's integrity.

**6. A** — Structural with waste:  $850 \times 1.04 = 884 \text{ CY} \times \$185 = \$163,540$ . Slab with waste:  $320 \times 1.04 = 332.8 \text{ CY} \times \$155 = \$51,584$ . Finishing:  $18,000 \times \$2.75 = \$49,500$ . Total:  $\$163,540 + \$51,584 + \$49,500 = \$264,624$ . Each concrete type is calculated separately with its own unit price, and the waste factor applies to volume, not to finishing labor.

**7. C** — Postbid substitution of listed subcontractors is generally prohibited in public bidding because it enables bid shopping — using the winning bid as leverage to solicit lower subcontractor prices after the competition has closed. Most jurisdictions permit substitution only for cause such as the listed subcontractor's failure to execute, license loss, or default. This protects both the public bidding process and subcontractors.

**8. D** — The conflicting ACI edition references must be resolved before the contractor can price accurately. The estimator should submit an RFI identifying the three different editions and requesting clarification. If no response comes before the deadline, pricing the most current and stringent edition (ACI 31822) protects against underpricing. Pricing the oldest or averaging the standards creates specification compliance risk.

**9. B** — Overhead rate:  $\$405,000 \div \$2,700,000 = 15\%$ . Allocation:  $\$1,350,000 \times 15\% = \$202,500$ . Total cost:  $\$1,552,500$ . Selling price:  $\$1,552,500 \div 0.95 = \$1,634,211$ . Dividing by  $(1 - \text{margin})$  ensures profit equals exactly 5% of the selling price. Adding 5% to cost would produce only a 4.76% margin on selling price.

**10. A** — Without an "or equal" clause, only the architect can authorize a substitute product. The contractor must submit a formal request with samples, technical data, and cost comparisons for the three alternatives. Installing any alternative without the architect's written approval violates the specification and may require removal and replacement at the contractor's expense.

**11. D** — The GC must immediately correct the billing to reflect actual progress, notify the subcontractor of the overbilling pattern, and implement enhanced verification. The GC has a duty to verify billing accuracy before submitting to the owner. Allowing \$95,000 in cumulative overbilling to continue exposes the GC to breach of contract and potential fraud liability.

**12. C** — Selfperformed:  $\$35,000 \times 1.15 = \$40,250$ . Subcontracted:  $\$130,000 \times 1.08 = \$140,400$ . Total:  $\$40,250 + \$140,400 = \$180,650$ . The different markup rates apply to each category based on who performs the work. The contractor earns 15% only on the \$35,000 they selfperform and 8% on the \$130,000 subcontracted.

**13. A** — The environmental assessment represented the renovation areas as asbestosfree. The actual condition (chrysotile asbestos in pipe insulation) differs materially from what was represented. This is a Type I differing site condition. The contractor relied on the assessment when pricing their bid and is entitled to the \$85,000 abatement cost through a change order.

**14. B** — The owner's postcontract directive to implement a vaccination/testing program constitutes a change to the contract conditions. The \$28,000 compliance cost should be addressed through a change order because this requirement did not exist when the project was priced. The contractor should acknowledge the directive, comply, and submit the change order with supporting cost documentation.

**15. D** — A properly drafted liquidated damages clause is enforceable as a preagreed estimate of damages that are difficult to calculate at contracting time. The contractor agreed to \$4,000/day when signing the contract. Courts enforce these clauses unless found to be an unenforceable penalty, and the fact that actual damages were zero does not automatically void a properly structured LD provision.

**16. C** — A conditional lien waiver becomes effective only upon actual receipt of payment. Representing to the owner that the subcontractor was paid when they were not is a material misrepresentation that may constitute fraud, breach of the prime contract, and potentially criminal liability. Conditional waivers are specifically designed to prevent this exact abuse.

**17. A** — After 75 days past the deadline with three unanswered demands, the contractor should send a final escalated demand via certified mail with a specific deadline. The notice should state that continued nonpayment will trigger mechanics' lien filing, dispute resolution initiation, and interest claims. This converts passive waiting into active enforcement with documented consequences.

**18. B** — On T&M contracts, daily time sheets signed by both parties are the primary billing evidence. The owner will likely pay the 225 documented hours and dispute the 35 unsigned hours. The contractor must prove the evening shift hours through alternative documentation — security logs, equipment records, or material consumption data that corroborates the claimed work.

**19. D** — Changing exterior cladding from fiber cement to aluminum composite panels is a scope change regardless of who initiated it. The contractor priced the original specification. The \$120,000 cost difference is the owner's responsibility through a change order because the architect's design authority does not include the right to impose uncompensated scope changes on the contractor.

**20. C** — Failing to document owner and architect site visits, verbal directives, and design discussions creates critical gaps in the contemporaneous record. Without this documentation, the contractor cannot prove what was discussed or directed during these interactions. This weakness undermines change order claims, delay claims, and dispute positions where verbal communications are central to the facts.

**21. A** — The SPI of 0.90 at the 50% mark is most concerning because schedule deficits become progressively harder to recover as fewer activities remain to accelerate. Only 45% of planned work is complete when 50% should be done. The gap compounds through the remaining project, and the contractor has less flexibility to recover schedule as the project progresses toward completion.

**22. B** — The specification requires cast iron within 10 feet of occupied space specifically for noise control. PVC drain piping transmits significantly more noise than cast iron and would be directly audible in the private office suite below. The subcontractor must remove the PVC and install cast iron at their own expense because this is an unauthorized substitution that fails the specification's noise control requirement.

**23. D** — Original: 105 days. Weather delay adds 7 days during Site Work. Steel change order adds 5 days. Both occur on the critical path on different activities at different times. Each independently extends the completion date. Revised:  $105 + 7 + 5 = 117$  days. The two additions do not offset each other because they affect different sequential activities.

**24. C** — The contractor should phase the sewer replacement into short segments performed during evenings or weekends, install dust barriers, use vibrationdampening techniques, and coordinate each phase with the building manager. This approach maintains building operations as required by the contract. A change order should be submitted if offhours work was not contemplated in the original contract.

**25. A** — The project manager must verify the tendon delivery, confirm the subcontractor's completion timeline, coordinate with the concrete supplier, and develop a contingency plan. Pouring concrete over incomplete posttensioning tendons would create a structural deficiency that cannot be corrected after placement. The pour must be postponed if the tendons cannot be installed in time.

**26. D** — CGL pays peroccurrence: Incident 1 = \$400,000; Incident 2 = \$850,000; Incident 3 = \$600,000. Aggregate used: \$1,850,000. Remaining aggregate: \$150,000. Incident 4: CGL pays only \$150,000 (remaining aggregate), leaving \$350,000 uncovered. The umbrella policy or the contractor's personal assets must cover the \$350,000 shortfall.

**27. A** — Total capacity:  $15 \times \$220,000 = \$3,300,000$ . Existing backlog: \$2,800,000. Available: \$500,000. The contractor has limited capacity for additional bonds. To obtain a significant new bond, the contractor must either increase working capital or complete existing projects to free capacity. Net worth supports the relationship but cannot override the working capital constraint.

**28. C** — Year 1 premium:  $\$280,000 \times 1.25 = \$350,000$ . Year 2: \$308,000. Year 3: \$266,000. Year 4: \$238,000. Total: \$1,162,000 versus \$1,120,000 at constant 1.0 EMR. The early high premiums (\$70,000 and \$28,000 above base) offset later savings, but Year 4's \$42,000 annual savings compounds forward, and the 0.85 EMR opens safetyconscious bidding opportunities.

**29. B** — All treatments — ice pack, OTC naproxen, diagnostic Xrays, and a nonrigid elastic back support — are classified as first aid under OSHA definitions. Nonrigid elastic supports, OTC medications, and diagnostic imaging are specifically listed as first aid. The worker returned to full duty with no restrictions. No recordable outcome occurred.

**30. D** — Establishments with 20249 employees in designated highhazard industries (including construction) must submit 300A Annual Summary data electronically through OSHA's ITA by March 2 of the following year. With 200 employees in construction, this employer falls within the electronic reporting requirement. The submission covers only summary data, not individual case details.

**31. A** — The prescribed corticosteroid cream is prescription medication — medical treatment beyond first aid. Additionally, the physiandiagnosed workrelated contact dermatitis is a significant illness that independently triggers recordability. Either criterion alone makes the case recordable regardless of the worker's return to full duty with no lost time.

**32. C** — The FMLA provides intermittent leave when medically necessary to care for a son or daughter with a serious health condition. Leukemia requiring biweekly chemotherapy is unquestionably a serious health condition. The employer has 55 employees (above threshold) and the worker has 3 years of tenure (exceeding eligibility). Each treatment session is deducted from the 12week entitlement.

**33. D** — Straighttime + bonus:  $(\$36.00 \times 50) + \$240 = \$2,040$ . Regular rate:  $\$2,040 \div 50 = \$40.80$ . Overtime premium:  $\$40.80 \times 0.5 \times 10 = \$204.00$ . Total gross:  $\$2,040 + \$204 = \$2,244.00$ . The nondiscretionary completion bonus must be included in the regular rate, increasing the overtime premium above the baserate calculation.

**34. B** — Three instances of mocking a worker's religious practices in front of the crew constitutes religious harassment requiring prompt corrective action. Appropriate responses include formal written warning or suspension, mandatory training, potential reassignment to prevent further contact, and thorough documentation. The employer must demonstrate it took effective action proportional to the severity.

**35. A** — Demoting a worker and cutting pay 40% immediately after filing a workers' compensation claim creates a strong inference of retaliation. The temporal proximity between the filing and the adverse action shifts the burden to the employer. The employer must prove the demotion was motivated by legitimate nonretaliatory reasons unrelated to the claim — a difficult burden given the timing.

**36. C** — Under DavisBacon, the overtime premium applies to the cash wage plus prorated nondiscretionary bonuses. Regular rate:  $(\$38.00 \times 46 + \$175) \div 46 = \$41.80$ . Overtime premium:  $\$41.80 \times 0.5 \times 6 = \$125.42$ . Fringe at \$17.00 straighttime for all 46 hours. The weather bonus increases the effective overtime cost.

**37. D** — OSHA Section 11(c) protects employees who report safety violations or refuse work posing imminent danger. An unprotected trench deeper than 6 feet violates OSHA excavation standards and creates a recognized lethal hazard. The worker's refusal is a protected safety activity, and the termination constitutes unlawful retaliation regardless of how the employer characterizes it.

**38. B** — The FMLA provides up to 12 weeks of leave to care for a parent with a serious health condition. A stroke requiring ongoing supervision qualifies. The employer has 60 employees (above threshold) and the worker has 5 years of tenure (exceeding eligibility). There is no geographic proximity requirement — the employee can travel 150 miles to provide parental care.

**39. A** — Each I9 with an incomplete Section 2 constitutes a separate violation subject to civil penalties. The employer must examine identity and work authorization documents and complete Section 2 within 3 business days of hire. Twenty forms with entirely blank employer verification sections represent a systematic compliance failure with significant penalty exposure per form.

**40. C** — After FMLA exhaustion, the ADA interactive process applies. The employer must evaluate whether the 30-pound lifting restriction can be accommodated — through reassignment to available vacant positions (trim carpentry, cabinet installation, layout), mechanical aids, or job restructuring. The employer cannot terminate without completing the interactive process and demonstrating no reasonable accommodation exists.

**41. D** — Percentage complete:  $\$1,428,000 \div \$2,040,000 = 70\%$ . Earned revenue:  $70\% \times \$2,400,000 = \$1,680,000$ . Billings:  $\$1,760,000$ . Overbilled by  $\$80,000$ . Gross profit:  $\$2,400,000 - \$2,040,000 = \$360,000$ . Gross margin: 15%. The  $\$80,000$  overbilling appears as a current liability representing work billed but not yet earned.

**42. B** — Year 1: 50% complete ( $\$1,275,000 \div \$2,550,000$ ). Revenue =  $50\% \times \$3,000,000 = \$1,500,000$ . Year 2: 80% complete ( $\$2,040,000 \div \$2,550,000$ ). Cumulative revenue =  $80\% \times \$3,000,000 = \$2,400,000$ . Year 2 incremental:  $\$2,400,000 - \$1,500,000 = \$900,000$ . Revenue is recognized by subtracting previously recognized amounts.

**43. A** — Inflows:  $\$60,000 + \$590,000 + \$25,000 + \$85,000 = \$760,000$ . Outflows:  $\$410,000 + \$275,000 + \$62,000 + \$28,000 + \$18,000 = \$793,000$ . Net:  $\$760,000 - \$793,000 = -\$33,000$ . The contractor faces a  $\$33,000$  shortfall requiring additional financing, accelerated collections, or expenditure reductions.

**44. C** — Working capital:  $\$920,000 - \$680,000 = \$240,000$ . Capacity:  $15 \times \$240,000 = \$3,600,000$ . Existing:  $\$2,600,000$ . Available:  $\$1,000,000$ . The  $\$1,500,000$  request exceeds available capacity by  $\$500,000$ . The contractor needs approximately  $\$33,333$  in additional working capital ( $\$500,000 \div 15$ ) or must complete existing projects.

**45. B** — Gross profit:  $\$7,400,000 - \$6,290,000 = \$1,110,000$ . Gross margin: 15%. Net income:  $\$1,110,000 - \$666,000 = \$444,000$ . Net margin:  $\$444,000 \div \$7,400,000 = 6\%$ . The 15% gross margin indicates strong project profitability and the 6% net margin reflects healthy bottomline performance after overhead.

**46. D** — The IRS reclassifies  $\$60,000$  from distributions to salary ( $\$150,000 - \$90,000$ ). FICA at 15.3%:  $\$60,000 \times 0.153 = \$9,180$ , plus penalties and interest. The IRS targets S Corporation owners with disproportionate salary-to-distribution ratios, particularly when the salary is well below industry standards for the services performed.

**47. A** — The IRS graduated penalty structure assesses 2% on deposits 15 days late. At 4 days past the deadline, the  $\$20,000$  deposit triggers the lowest tier penalty. Penalty:  $\$20,000 \times 2\% =$

\$400. While modest for a single occurrence, repeated late deposits trigger escalated penalties and enhanced scrutiny.

**48. C** — Corporate tax on \$250,000 distributed:  $21\% \times \$250,000 = \$52,500$ . Dividend tax:  $15\% \times \$250,000 = \$37,500$ . Total: \$90,000. Effective rate:  $\$90,000 \div \$250,000 = 36\%$ . This double taxation illustrates why many contractors prefer passthrough entities that avoid the second layer of tax on distributed profits.

**49. B** — W2 wages of \$45,000 reduce the SS wage base:  $\$168,600 - \$45,000 = \$123,600$ . Social Security (12.4%) on \$123,600 = \$15,326. Medicare (2.9%) on \$184,700 = \$5,356. No surtax because \$184,700 is below \$200,000. Total: approximately \$20,682. The W2 offset prevents doublecounting of the wage base.

**50. D** — Adjusted SE income: \$360,165 exceeds the \$168,600 wage base. Social Security (12.4%) capped at \$168,600 = \$20,906. Medicare (2.9%) on full \$360,165 = \$10,445. Additional Medicare surtax (0.9%) on \$160,165 ( $\$360,165 - \$200,000$ ) = \$1,441. Total: approximately \$32,792. The surtax applies because adjusted SE income exceeds the \$200,000 threshold.