

PRACTICE EXAM 35: 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 twomember LLC operating as a construction company has not elected SCorporation taxation and is taxed as a partnership by default. Member A owns 55% and manages all field operations fulltime. Member B owns 45% and handles all office management and bookkeeping fulltime. The LLC earns \$520,000 in net income. Both members are active participants. How is the income taxed for selfemployment purposes, and how does this compare to an SCorporation election?

A. Both members pay income tax on their shares but neither pays selfemployment tax because LLC income is classified as passive regardless of participation level

B. Only Member A pays selfemployment tax because field operations constitute "active" work while office management is classified as "passive" under IRS definitions

C. Both members pay selfemployment tax at a flat rate of 7.65% (employee share only) because the LLC structure eliminates the employer share of FICA

D. Both members pay selfemployment tax on their full distributive shares (\$286,000 for A and \$234,000 for B) because both are active participants — compared to an SCorporation election where each could set a reasonable salary and take the remaining income as distributions not subject to FICA, the default partnership taxation subjects the entire distributive share to the 15.3% SE tax

DOMAIN: LICENSING (4 Questions)

2. A contractor holds an unrestricted commercial license with a Building Construction (BU) classification. The contractor is awarded a \$1,800,000 project to construct a commercial cold storage warehouse requiring specialized insulated panel construction, ammonia refrigeration system installation, and blast freezer equipment. Can the contractor perform all components of this project under their BU classification?

A. Yes, because the BU classification covers all commercial building construction without limitation including specialized refrigeration systems

B. The contractor should verify with the ACLB whether the ammonia refrigeration system installation and blast freezer equipment require a Mechanical Construction (ME) classification or other specialty licensing — while the BU classification covers the building shell and insulated panel construction, process refrigeration systems using ammonia may fall outside the standard BU scope

C. No, because cold storage warehouses require a separate "Refrigerated Facilities" license issued by the Arkansas Department of Health

D. Yes, because any building valued under \$2,000,000 can be constructed under a single BU classification regardless of the specialized systems involved

3. A licensed contractor in Arkansas subcontracts the electrical work on a commercial project to a firm that provides an electrical contractor's license number on their bid documents. The general contractor does not independently verify the license. During construction, the building inspector discovers the electrical subcontractor's license was revoked 8 months ago for performing substandard work. The electrical installation fails inspection. What is the general contractor's exposure?

A. No exposure because the subcontractor provided a license number and the GC had no duty to verify its current validity

B. Exposure limited to the cost of reinspecting the failed electrical work, with no disciplinary consequences

C. The general contractor faces potential ACLB disciplinary action for failing to verify the subcontractor's current license status — the GC has a responsibility to ensure all subcontractors hold valid licenses, and relying on an unverified license number without confirming its current standing constitutes a failure of due diligence that may result in sanctions

D. Exposure only if the electrical work causes a fire or other safety incident

4. The ACLB receives a complaint that a licensed contractor collected a \$180,000 deposit from a commercial property owner for a tenant improvement project, performed approximately \$40,000 of demolition work, and then stopped showing up at the jobsite. The property owner has been unable to reach the contractor for 10 weeks. Bank records obtained through the investigation show the contractor used \$90,000 of the deposit for personal expenses unrelated to the project. What legal exposure does the contractor face beyond ACLB disciplinary action?

A. Criminal prosecution for theft by deception, conversion, or fraud — diverting \$90,000 of project funds to personal use while abandoning the project constitutes potential criminal conduct separate from the civil breach of contract and the ACLB licensing violation, exposing the contractor to criminal charges, civil liability for the full \$180,000, and license revocation

B. Only a civil lawsuit by the property owner for breach of contract with no criminal implications

C. Only ACLB disciplinary action because the Board has exclusive jurisdiction over contractor financial misconduct

D. Criminal prosecution only if the total diverted amount exceeds \$100,000, which is the felony threshold for construction fund diversion

5. A contractor applies for an Arkansas restricted commercial license. The application includes a compiled financial statement showing net worth of \$55,000 and cash of \$28,000. The applicant has passed both the NASCLA trade exam and the Arkansas Business and Law exam, provides three references, posts a \$10,000 surety bond, and documents 6 years of commercial construction experience. The ACLB reviewer notices that the financial statement is dated 14 months before the application submission date. Is there a problem with the application?

A. No, because compiled financial statements have no expiration date for licensing purposes

B. No, because the financial figures (\$55,000 net worth and \$28,000 cash) meet the minimum thresholds regardless of the statement date

C. Yes, because compiled statements are not acceptable for restricted commercial licenses — only audited or reviewed statements qualify

D. Yes, because the ACLB requires financial statements to be dated within 12 months of submission — a statement that is 14 months old does not reflect the applicant's current financial condition and must be replaced with a current statement before the application can be processed

DOMAIN: ESTIMATING AND BIDDING (4 Questions)

6. A contractor's estimator calculates the following for a commercial project: direct costs \$1,180,000; annual overhead \$354,000 on annual direct cost volume of \$2,360,000; target net profit margin 6% on selling price. What is the correct selling price?

- A. \$1,180,000 with no overhead or profit applied to the bid
- B. \$1,357,000, calculated with overhead but using a 6% markup on cost instead of margin on selling price
- C. \$1,443,617, calculated by allocating overhead at 15% (\$177,000), adding to direct costs (\$1,357,000), and dividing by 0.94 to achieve exactly 6% margin on selling price ($\$1,357,000 \div 0.94$)
- D. \$1,534,000, calculated by applying a flat 30% combined markup to the direct costs

7. A public project requires sealed unit price bids for 18 items of work. After contract award, the actual quantity of Item 5 (rock excavation) increases from the estimated 500 cubic yards to 1,400 cubic yards — a 180% increase. The contractor bid Item 5 at \$85 per cubic yard, which included significant mobilization and equipment setup costs spread across the estimated 500 CY. At the higher quantity, the perunit cost actually decreases because the same setup costs are spread over more volume. The owner asks the contractor to reduce the unit price for the additional quantity. Does the contractor have an obligation to reduce the unit price?

- A. The contractor has no obligation to reduce the unit price unless the contract contains a quantity variation clause that specifically allows price renegotiation when quantities exceed a stated percentage — if the contract is silent on quantity adjustments, the bid unit price of \$85 applies to all actual quantities regardless of how the contractor's perunit cost changes with volume
- B. Yes, because unit prices must always reflect current actual costs and cannot include embedded profit that increases with volume
- C. Yes, because quantity increases exceeding 100% automatically trigger unit price renegotiation under public bidding law
- D. No, because the contractor can only increase unit prices for quantity changes, never decrease them

8. A contractor needs to estimate the concrete cost for a commercial building's secondfloor elevated slab. The slab is 8,500 square feet at 6 inches thick. Concrete costs \$175 per cubic yard with a 6% waste factor for pump loss. Elevated slab finishing labor is \$3.25 per square foot. What is the total estimated cost?

- A. \$27,625, representing only the finishing labor
- B. \$56,824, calculated as concrete with waste ($166.85 \text{ CY} \times \$175 = \$29,199$) plus finishing labor ($8,500 \text{ SF} \times \$3.25 = \$27,625$)
- C. \$49,199, calculated without finishing labor
- D. \$65,000, calculated using an 8inch slab thickness instead of the specified 6 inches

9. A contractor receives three subcontractor quotes for the fire protection (sprinkler) work on a commercial project: \$192,000, \$205,000, and \$178,000. The \$178,000 low quote comes from a subcontractor whose license was reinstated only 2 months ago after a 6month suspension for code violations. The \$192,000 secondlowest quote is from a subcontractor with 15 years of clean performance history and excellent references. What is the most prudent approach?

- A. Use the \$178,000 quote because the subcontractor's license is currently valid and past disciplinary history is irrelevant to the current bid
- B. Average all three quotes and use \$191,667 as the fire protection budget
- C. Use the \$178,000 quote but add a \$25,000 contingency for potential code violation rework
- D. Use the \$192,000 quote from the proven subcontractor — the \$14,000 premium (7.9%) is justified by the substantially lower risk of code violations, inspection failures, and rework compared to a subcontractor who just completed a 6month suspension for the exact type of problems that would be most costly on a fire protection installation

DOMAIN: CONTRACT MANAGEMENT (8 Questions)

10. A contractor on a fixedprice commercial project discovers that the specified roofing membrane has been discontinued by the manufacturer midproject. The contractor has already installed the membrane on 60% of the roof. The remaining 40% cannot be completed with the specified product. The contract does not include an "or equal" clause for roofing materials. What must the contractor do?

- A. Select the closest available substitute and install it without notification because the original product is unavailable through no fault of the contractor
- B. Stop the roofing installation entirely and wait for the manufacturer to resume production of the discontinued product
- C. Submit a formal substitution request to the architect identifying the discontinuation, providing alternative products with technical data showing equivalent performance, and

requesting expedited approval — because without an "or equal" clause only the architect can authorize a substitute, and the contractor must also address the transition detail between the existing 60% and the replacement product on the remaining 40%

D. Issue a deductive change order for the remaining 40% of roofing and exclude it from the project scope

11. A general contractor on a commercial project receives a change order adding \$200,000 of additional mechanical work. The contractor will subcontract \$165,000 of ductwork and selfperform \$35,000 of equipment pad construction. The contract allows 15% markup on selfperformed work and 8% on subcontracted work. What is the total billable change order amount?

A. \$218,450, calculated as selfperformed ($\$35,000 \times 1.15 = \$40,250$) plus subcontracted ($\$165,000 \times 1.08 = \$178,200$)

B. \$230,000, calculated at 15% on the full \$200,000

C. \$200,000 with no markup applied

D. \$210,000, calculated at a blended 5% markup

12. A project owner terminates a contractor for cause, alleging failure to maintain adequate progress. The contractor has contemporaneous documentation showing: 45 days of ownercaused delays (late design decisions, changed utility locations), 12 unanswered RFIs that delayed critical path activities, and the owner's failure to provide timely site access for 3 weeks. The contractor's own productivity shortfall accounts for only 8 days of the total project delay. If the contractor challenges the termination, what is the likely outcome?

A. The termination stands because the owner has absolute authority over termination decisions regardless of the cause of delays

B. The termination will likely be found wrongful and converted to a termination for convenience — the contractor's comprehensive documentation demonstrates that the owner's own actions caused the vast majority of the delay, and terminating a contractor for delays predominantly caused by the owner is not a valid basis for a forcause termination

C. The termination stands because the contractor's 8day productivity shortfall independently justifies the forcause action

D. The contractor can recover only demobilization costs because wrongful termination claims are capped at direct expenses

13. A subcontractor on a commercial project provides a 2year warranty on their curtain wall installation. Sixteen months after substantial completion, the building owner notices water infiltration at multiple curtain wall joints during winddriven rain events. Investigation reveals that the sealant joints were applied in widths averaging 1/4 inch instead of the specification's minimum 3/8 inch. The narrower joints have less movement capacity and are cracking under normal building deflection. Under the warranty, is the subcontractor responsible?

A. No, because water infiltration during winddriven rain is an extraordinary weather event excluded from warranty coverage

B. No, because sealant joint width variations of 1/8 inch are within standard industry tolerance

C. Yes, but only for the cost of resealing the joints, not for any interior water damage caused by the infiltration

D. Yes, because the sealant joints were installed at 1/4 inch instead of the specified 3/8 inch — this is a workmanship defect that directly caused the water infiltration, and the warranty covers defects in materials and workmanship, making the subcontractor responsible for both the joint repair and the resulting water damage

14. A contractor completes a commercial project. The oneyear warranty begins on the date of substantial completion (October 1). On September 18 of the following year — thirteen days before expiration — the building owner discovers that the parking lot concrete is scaling extensively due to improper air entrainment in the concrete mix. The owner notifies the contractor on September 20. The contractor states they cannot investigate until November because their concrete specialist is booked. Is the warranty claim preserved?

A. No, because the contractor must complete investigations within the warranty period for claims to be valid

B. No, because concrete scaling is considered normal wear and tear excluded from construction warranties

C. Yes, because the owner discovered the defect on September 18 and notified the contractor on September 20 — both within the warranty period — preserving the claim regardless of when the contractor performs the investigation, and the contractor cannot defeat the warranty by citing specialist scheduling delays

D. Yes, but only if the owner obtains independent concrete testing before the October 1 expiration

15. A contractor on a school project receives a written directive from the school district's construction manager to install bulletresistant windows in all firstfloor classrooms. The original contract specifies standard commercialgrade windows. The upgrade costs \$195,000. The

construction manager states the change is required by newly adopted school board security policy. Under standard change order provisions, who bears this cost?

A. The school district bears the cost through a change order because the bulletresistant windows were not in the original contract documents and the security policy was adopted after the contract was signed — the contractor priced standard windows per the original specification, and the upgrade constitutes additional scope regardless of the security justification

B. The contractor bears the cost because school security upgrades are considered essential building features that should be anticipated in all educational facility bids

C. The window manufacturer should absorb the cost difference as a contribution to school safety

D. The architect bears the cost because they should have anticipated enhanced security requirements during the design phase

16. A contractor on a timeandmaterials emergency repair contract submits weekly invoices. The contract specifies: "Materials shall be billed at actual cost plus 15%." The contractor purchases \$8,000 of materials from a supply house and receives a \$600 trade discount (7.5% off list price). The contractor bills the owner at the \$8,000 list price plus 15% (\$9,200). The owner discovers the trade discount. What is the correct billing?

A. \$9,200, because the list price represents the fair market value of the materials regardless of any contractorspecific discounts

B. The contractor should bill at the actual cost after the trade discount (\$7,400) plus 15% (\$1,110) = \$8,510 — the contract specifies "actual cost," and the actual cost the contractor paid is the discounted price of \$7,400, not the \$8,000 list price

C. \$8,800, calculated as the list price minus half the discount, plus 15% markup

D. \$8,000 with no markup because the trade discount offsets the 15% contractor markup

17. A project architect issues a nonconformance report stating that firerated door assemblies throughout the building are missing their UL certification labels. The door installer argues the labels were inadvertently painted over during the finishing phase. The building inspector will not approve the firerated assemblies without visible certification labels. What must happen?

A. The firerated assemblies cannot be accepted without their certification labels — the doors must be either relabeled by an authorized representative of the certification testing laboratory or replaced with new assemblies bearing intact labels, because paintedover labels void the visible proof of fire rating that inspectors and future building officials require

B. The architect can issue a certificate confirming the doors are fire-rated based on the original purchase orders

C. Photographs of the labels taken before painting can substitute for the physical labels during inspection

D. The door installer can affix generic fire-rating stickers that match the specified rating without involving the testing laboratory

18. A contractor working on a commercial renovation discovers that the existing building's roof structure has concealed dry rot in the wood trusses — damage not visible during the prebid walkthrough and not identified in any contract document. Emergency shoring is needed immediately, and permanent truss repair or replacement will cost \$85,000. Under the differing site conditions clause, who bears this cost?

A. The contractor, because experienced renovation contractors should anticipate structural deterioration in older buildings

B. The cost should be split equally because concealed structural conditions are a shared renovation risk

C. The owner bears the cost through a change order because the dry rot is a concealed existing condition not represented in the contract documents — the contractor relied on the absence of disclosed structural deficiencies when pricing the bid, and the actual condition differs materially from what was represented

D. The roofing manufacturer bears the cost because the deterioration resulted from a product defect in the original roofing materials

19. A general contractor's subcontract with a painting subcontractor includes a paywhenpaid clause: "Payment to Subcontractor shall be made within 10 days after Contractor receives corresponding payment from the Owner." The owner pays the GC on April 10. The GC does not pay the painting subcontractor until June 5 — 56 days after receiving the owner's payment. The subcontractor demands interest on the late payment. Is the demand valid?

A. Yes, because the clause requires payment within 10 days — the deadline was April 20, making the June 5 payment 46 days late, and the subcontractor is entitled to interest from April 20 through June 5 for the GC's breach of the contractual payment timeline

B. No, because paywhenpaid clauses are timing triggers only and create no enforceable deadlines

C. Yes, but only if the subcontract includes a specific interest rate provision for late payments

D. No, because the 56-day period is within the industry-standard 60-day payment cycle for commercial construction

20. A project owner issues a deductive change order removing the entire irrigation system (\$48,000) from a commercial landscaping project. The contractor's bid included \$38,000 in direct costs and \$10,000 in overhead and profit. The contract states: "Deductive change orders shall be calculated at direct cost savings." What is the correct deduction?

- A. \$48,000, representing the full bid amount including overhead and profit
- B. \$38,000, representing the direct cost savings only — the contractor retains the \$10,000 in overhead and profit because the contract calculates deductive change orders at "direct cost savings," not at the full bid value
- C. \$24,000, representing 50% of the bid amount as a standard deductive change order discount
- D. \$43,200, representing 90% of the bid amount with a 10% contractor retention

21. A contractor on a commercial project receives a written directive from the owner to install a standby generator system not included in the original contract. The estimated cost is \$160,000. The owner's directive states: "Please proceed immediately — formal change order to follow." The contractor wants to protect their financial position while keeping the project moving. What is the optimal approach?

- A. Refuse to begin any generator work until a fully executed change order with an agreed price is signed by both parties
- B. Install the generator immediately based on the owner's directive and include the cost in the next monthly payment application without additional documentation
- C. Begin the work but deduct the \$160,000 from the owner's retainage as an advance payment against the pending change order
- D. Respond in writing acknowledging the directive as additional scope, state the contractor will proceed while tracking all costs on a T&M basis, submit a formal change order proposal for \$160,000 with schedule impact analysis, and preserve the right to recover full actual costs if they exceed the estimate — this keeps the project moving while creating the documentary record needed for cost recovery

22. A contractor on a public school project discovers that the specified gymnasium flooring manufacturer has gone out of business. No remaining inventory exists. The specification names the product by brand and model with no "or equal" clause. Three alternative products from other manufacturers appear to meet the performance requirements. What must the contractor do?

- A. Select the most similar alternative product and install it without architect approval because the specified product no longer exists

- B. Exclude the gymnasium flooring from the project scope and issue a deductive change order
- C. Submit a formal substitution request to the architect presenting all three alternatives with technical data, performance comparisons, warranty information, and samples — only the architect can authorize a substitution when no "or equal" clause exists, and the contractor must provide sufficient information for the architect to evaluate whether any alternative meets the contract's performance requirements
- D. Request the project owner to contact the manufacturer's successor company to obtain the specified product

23. A contractor's daily report from Thursday records: "Plumbing inspector arrived at 10:00 AM for the underground sanitary sewer inspection. Inspector rejected the installation for two reasons: (1) the sewer main has a reverse slope at station 2+50, creating a belly where sewage will collect rather than flowing by gravity; (2) a fitting connection at the building cleanout uses a long sweep 90 degree elbow installed in the wrong orientation — the sweep direction opposes the flow direction." Why is the reverse slope deficiency particularly critical?

- A. The reverse slope creates a low point (belly) where solid waste accumulates over time — without continuous downhill gravity flow throughout the entire run, the sewer main will develop chronic blockages at station 2+50 that require repeated cleaning and eventually lead to sewage backups into the building, making this a permanent functional deficiency that worsens progressively with use
- B. The reverse slope is a cosmetic issue that does not affect the sewer's functional performance
- C. The reverse slope affects only the initial flush and selfcorrects as the pipe settles into its bedding material
- D. The reverse slope is significant only if it exceeds 2 inches in a 10 foot run

24. A contractor managing a renovation in an occupied medical office building needs to cut through an existing concrete floor slab to install a new floor drain. The cutting will generate significant noise, dust, and vibration directly below an operating examination room. The contract requires maintaining patient care operations and noise levels below 75 decibels in occupied clinical areas. How should the contractor approach this work?

- A. Perform the cutting during business hours using wetcutting methods that reduce dust and noise
- B. Schedule the concrete cutting during nonclinical hours (evenings or weekends), install temporary barriers between the cutting area and the occupied space above, use wetcutting methods to minimize dust, and submit a change order if offhours work was not included in the original contract — because the 75 decibel limit and patient care requirements prohibit this type of work during clinical operations

- C. Request the building manager to close the examination room for one day while the cutting occurs
- D. Use hand tools instead of power saws to reduce noise below 75 decibels, accepting the significantly longer duration

25. A project's earned value analysis at the 55% completion mark shows: BAC = \$8,200,000; PV = \$4,510,000; EV = \$4,100,000; AC = \$4,350,000. What are the SPI, CPI, and EAC if the current cost trend continues?

- A. SPI = 1.10 and CPI = 1.06, indicating the project is ahead of schedule and under budget
- B. SPI = 0.909 and CPI = 0.943, with the project over budget but slightly ahead of schedule
- C. Both metrics are within acceptable tolerance and no corrective action is needed
- D. SPI = 0.909 ($\$4,100,000 \div \$4,510,000$) and CPI = 0.943 ($\$4,100,000 \div \$4,350,000$) — both below 1.0, indicating the project is behind schedule and over budget, with an EAC of approximately \$8,695,000 ($\$8,200,000 \div 0.943$) if the current cost inefficiency continues

DOMAIN: PROJECT MANAGEMENT (6 Questions)

26. A contractor's superintendent discovers that the HVAC subcontractor installed supply air diffusers in a hospital operating room using standard commercial diffusers instead of the specified HEPAfiltered laminar flow diffusers. Standard diffusers do not provide the particle filtration or unidirectional airflow pattern required for surgical infection control. Approximately 8 operating rooms are affected. What should the superintendent do?

- A. Accept the standard diffusers and add supplemental portable HEPA filters to each operating room to compensate
- B. Stop the HVAC subcontractor immediately, notify the architect and the hospital infection control officer, and require replacement of all standard diffusers with the specified HEPA laminar flow units at the subcontractor's expense — operating room air quality is a patient life safety requirement governed by strict code and accreditation standards, and standard commercial diffusers do not meet surgical suite airflow specifications
- C. Document the substitution in the asbuilt drawings and address the issue during the hospital's accreditation survey
- D. Allow the standard diffusers to remain and reduce the operating room's patient capacity to compensate for the reduced air quality

27. A project schedule shows the following critical path: Mobilization (4 days) → Site Work (12 days) → Foundation (18 days) → Steel (24 days) → Roofing (8 days) → MEP (16 days) → Drywall (10 days) → Finishes (18 days) → Closeout (5 days). Total: 115 days. The owner issues a change order adding a mezzanine requiring 6 additional days of steel erection and a new 8day mezzanine enclosure activity between Steel and Roofing. What is the revised critical path duration?

A. 115 days unchanged because the mezzanine work can run concurrently with existing activities

B. 121 days, calculated by adding only the 6 steel days because the enclosure overlaps with roofing

C. 129 days, calculated as the original 115 days plus 6 additional steel days plus 8 mezzanine enclosure days — all additions are on the critical path with finishtostart relationships

D. 123 days, calculated by adding only the 8 enclosure days because the steel days are absorbed within existing float

28. A contractor's superintendent discovers that the structural steel erector has been using fielddrilled bolt holes instead of shopfabricated holes for approximately 20 beam connections. The structural specification states: "All bolt holes shall be shopfabricated. Fielddrilled holes are prohibited except with prior written approval from the structural engineer." The structural engineer has not been consulted. What should the superintendent do?

A. Stop the steel erector immediately, document all fielddrilled connections, notify the architect and structural engineer, and request a formal evaluation — fielddrilled holes may not meet the dimensional tolerances, edge distance requirements, or hole quality standards of shopfabricated holes, and the structural engineer must evaluate whether the 20 affected connections are structurally adequate or require remediation

B. Accept the fielddrilled holes because they are functionally equivalent to shopfabricated holes

C. Apply additional bolts at each affected connection to compensate for any dimensional tolerance issues

D. Document the field drilling in the asbuilt drawings and rely on the annual structural inspection to verify adequacy

29. A contractor managing a renovation in an occupied government building must replace the main sewer line running beneath the occupied first floor. The work requires cutting and removing sections of the groundfloor concrete slab, excavating the old pipe, installing the new pipe, backfilling, and patching the slab. The contract requires maintaining full building access and operations during construction. How should the contractor phase this work?

- A. Close the entire first floor for the duration of the sewer replacement and redirect all occupants to temporary office trailers
- B. Perform all sewer work simultaneously along the full length to minimize the total project duration regardless of the disruption
- C. Complete the sewer replacement overnight and have the floor patched before morning business hours each day
- D. Phase the work into short segments progressing along the sewer line, performing each segment during evening or weekend hours, installing temporary trench plates over open excavations between work sessions to maintain pedestrian access, and coordinating each phase with the building manager — submitting a change order if offhours work was not contemplated in the original contract

30. A project's earned value analysis at the 70% completion mark shows the CPI has been steadily declining: Month 3 = 1.04; Month 6 = 1.00; Month 9 = 0.96; Month 12 = 0.91. The SPI has been stable at approximately 1.03 throughout. What does this pattern indicate?

- A. The stable SPI means the project is healthy and the CPI decline will selfcorrect in the final 30%
- B. The project is progressively spending more per dollar of earned value while maintaining good schedule performance — the CPI declining from 1.04 to 0.91 over 9 months indicates a worsening cost problem requiring immediate investigation (material escalation, productivity decline, scope creep, estimating errors) and corrective action before the overrun compounds through the remaining 30%
- C. Both metrics are within tolerance and no corrective action is needed until project completion
- D. The declining CPI indicates improving schedule performance because money is being spent more aggressively to accelerate the work

31. A contractor's threeweek lookahead schedule identifies that the elevator installation is scheduled to begin next week, but the elevator shaft masonry walls have not received their firerating inspection. The elevator contractor cannot set equipment in an uninspected shaft. The building inspector requires 48 hours' advance notice for firerating inspections. It is currently Wednesday afternoon. What should the project manager do?

- A. Contact the building inspector immediately to schedule the firerating inspection for Friday at the earliest (satisfying the 48hour notice), coordinate with the elevator subcontractor to adjust their mobilization date if the inspection cannot be completed before their scheduled start,

and develop a contingency plan — because proactive scheduling prevents the elevator crew from arriving at a shaft where they cannot work

B. Direct the elevator installer to begin setting equipment regardless of the inspection status because the fire rating can be inspected after the elevator is installed

C. Cancel the elevator subcontract and install a staircase system to eliminate the shaft inspection dependency

D. Have the contractor's superintendent sign off on the fire rating in place of the building inspector

DOMAIN: INSURANCE AND BONDING (3 Questions)

32. A contractor carries a CGL policy with a \$2,000,000 peroccurrence limit and a \$4,000,000 general aggregate. The contractor also carries a \$5,000,000 umbrella policy. During the policy year, a catastrophic trench collapse on an active construction site injures 6 workers from multiple trades, producing a \$10,000,000 judgment. How is the judgment covered?

A. CGL pays \$4,000,000 (aggregate) and umbrella pays \$5,000,000, totaling \$9,000,000 with \$1,000,000 personal exposure

B. CGL pays \$2,000,000 and umbrella pays \$8,000,000, fully covering the judgment

C. CGL and umbrella combined pay only \$4,000,000, leaving \$6,000,000 in personal exposure

D. CGL pays \$2,000,000 (peroccurrence limit for this single trench collapse) and umbrella pays \$5,000,000 — total coverage \$7,000,000, leaving \$3,000,000 as the contractor's personal responsibility

33. A surety evaluates a contractor for a \$2,200,000 performance bond. The contractor's financial statements show: working capital \$175,000; net worth \$620,000; existing bonded backlog \$2,300,000. The surety uses a 15× working capital multiplier. What is the assessment?

A. Automatic approval because the contractor's net worth exceeds the bond request

B. Approval because the total bonding capacity exceeds the single bond request

C. Bonding capacity is \$2,625,000 ($15 \times \$175,000$), with \$2,300,000 committed leaving only \$325,000 available — the \$2,200,000 request exceeds available capacity by \$1,875,000, and the surety will deny the bond unless the contractor substantially increases working capital or completes existing bonded projects

D. Conditional approval requiring the contractor to increase their surety bond premium by 50%

34. A contractor's workers' compensation premium audit reveals that 5 workers classified as "general laborers" (\$8.50 per \$100 of payroll) have been performing "structural steel erection" (\$28.50 per \$100 of payroll) for the past year. The misclassified payroll totals \$310,000. The contractor's EMR is 1.12. What is the approximate additional premium owed?

A. Approximately \$69,440, calculated as the premium difference: $(\$310,000 \div \$100) \times (\$28.50 - \$8.50) \times 1.12 = 3,100 \times \$20.00 \times 1.12 = \$69,440$ — reflecting the vast risk difference between general labor and structural steel erection at height

B. \$26,350, calculated at the laborer rate on the full payroll without the classification adjustment

C. \$88,350, calculated at the steel erection rate without crediting the laborer premium already paid

D. \$0, because classification disputes between labor and steel erection are automatically waived

DOMAIN: OSHA RECORDKEEPING (3 Questions)

35. A construction worker is using a chop saw to cut metal studs when a piece of cut metal flies up and lacerates the worker's chin. The site medic cleans the wound, applies antibiotic ointment, and closes it with butterfly bandages. The worker returns to full duty immediately. Five days later, the wound reopens and a physician closes it with 6 sutures. The worker returns to full duty with no restrictions. At what point does this case become OSHA recordable?

A. At the initial injury because butterfly bandages constitute medical treatment beyond first aid

B. At the 5day followup when the physician applies 6 sutures — the initial butterfly bandage treatment was first aid, but sutures constitute medical treatment beyond first aid under OSHA definitions, and the case is recorded with the original injury date because the followup is a continuation of the original workrelated laceration

C. The case is not recordable because butterfly bandages are first aid and the subsequent sutures are classified as a separate nonworkrelated event

D. At the initial injury because the laceration involved a power tool, which triggers automatic recording

36. An employer with 190 employees in the construction industry reviews their OSHA electronic reporting obligations. What must they submit electronically?

- A. Complete 300 Logs and 301 Incident Reports within 7 days of each recordable incident
- B. No electronic submission because construction employers with fewer than 250 employees are exempt
- C. All 300 Logs, 300A Summaries, and 301 forms electronically on a monthly basis
- 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

37. A construction company has the following OSHA data for the year: 4 cases with days away from work totaling 55 lost days; 3 cases with restricted duty totaling 30 restricted days; 7 cases with medical treatment beyond first aid only; 1 fatality. Total hours worked: 300,000. What are the TRIR and DART rate?

- A. TRIR = 5.0 and DART = 2.7, using only half the total cases
- B. TRIR = 15.0 and DART = 8.0, calculated without the 200,000 normalization factor
- C. TRIR = 10.0 (15 total cases \times 200,000 \div 300,000) and DART = 5.3 (8 DART cases \times 200,000 \div 300,000) — TRIR includes all 15 recordable cases, DART includes only the 4 daysaway + 3 restricted + 1 fatality = 8 cases with lost time, restricted duty, or death
- D. TRIR = 3.0 and DART = 1.6, calculated using 1,000,000 hours in the denominator

DOMAIN: PERSONNEL REGULATIONS (8 Questions)

38. A contractor with 60 employees has a worker who has been employed for 7 years. The worker's spouse is diagnosed with a terminal illness requiring hospice care at home. The worker requests 12 weeks of continuous FMLA leave to provide endoflife care for the spouse. Under the FMLA, is this leave covered?

- A. Yes, because the FMLA provides up to 12 weeks of leave to care for a spouse with a serious health condition — terminal illness under hospice care is unquestionably a serious health condition, the employer has 60 employees (above threshold), the worker's 7year tenure exceeds eligibility, and the FMLA makes no distinction between active medical treatment and endoflife hospice care
- B. No, because FMLA spousal care leave is limited to periods of active medical treatment and does not extend to hospice care

- C. Yes, but only for 6 weeks because terminal illness care leave is capped at half the standard entitlement
- D. No, because hospice care is classified as palliative rather than medical, placing it outside the FMLA's serious health condition definition

39. A nonexempt electrician earns \$44.00 per hour and works 50 hours during a workweek. The employer provides a \$320 nondiscretionary weekly certification premium for maintaining current journeyman and master electrician licenses. Under the FLSA, what is the correct total gross pay?

- A. \$2,520.00 with no overtime premium
- B. \$2,772.00, calculated as straighttime plus premium (\$2,520.00) plus overtime premium (\$50.40 regular rate \times 0.5 \times 10 hours = \$252.00), where the \$320 certification premium is included in the regular rate ($\$2,520 \div 50 = \50.40)
- C. \$2,640.00, calculated at the base overtime rate without the certification premium
- D. \$2,900.00, calculated by applying doubletime to all overtime hours

40. An employer with 45 employees has a worker who has exhausted 12 weeks of FMLA leave following shoulder surgery. The worker's physician releases them with a permanent restriction: no overhead reaching or lifting above shoulder height. The worker's regular job as a commercial painter requires extensive overhead work. Under the ADA, what must the employer do?

- A. Terminate the worker immediately because overhead painting is an essential function that cannot be modified
- B. Hold the painter position open indefinitely until the restriction is lifted
- C. Create a new position specifically designed for workers with overhead restrictions
- D. Engage in the ADA interactive process to evaluate whether the restriction can be reasonably accommodated — potential accommodations include reassignment to available positions not requiring overhead work (trim painting, spray booth operation, estimating, material coordination), mechanical aids (scissor lifts, adjustable platforms), or restructuring the role so overhead work is performed by other crew members

41. A contractor operating on a DavisBacon covered project has laborers who work 48 hours during a workweek. The prevailing wage specifies laborer wages of \$24.00/hour plus \$11.00/hour in fringe benefits. One laborer receives a \$180 nondiscretionary weekly safety bonus. How must the overtime be calculated?

- A. Overtime at 1.5 times the combined wage and fringe ($\$35.00 \times 1.5$) for 8 hours
- B. Overtime at 1.5 times only the base wage ($\$24.00 \times 1.5 = \36.00) without the safety bonus
- C. The overtime premium applies to the cash wage plus the prorated safety bonus, while the fringe continues at straighttime — regular rate = $(\$24.00 \times 48 + \$180) \div 48 = \$27.75$; overtime premium = $\$27.75 \times 0.5 = \$13.88 \times 8 = \$111.00$; fringe at $\$11.00$ for all 48 hours
- D. No overtime because laborers receiving safety bonuses are exempt from FLSA overtime

42. An employer terminates a 56-year-old project manager with 14 years of excellent performance reviews and replaces them with a 30-year-old estimator at a 40% salary reduction. The employer cites "workforce modernization" as the reason. Under the ADEA, what combination of evidence most strongly supports an age discrimination claim?

- A. The 14 years of consistently excellent reviews contradicting any performance justification, the replacement with a significantly younger worker at lower pay, a pattern of similar replacements affecting other older workers, and the "modernization" language that may serve as a coded reference to wanting younger workers — together these create compelling circumstantial evidence that age was the but-for cause
- B. The employer's failure to post the position externally before hiring the replacement
- C. The terminated manager's educational credentials compared to the replacement's qualifications
- D. Evidence that the employer does not have a formal succession planning program

43. An employer's I9 compliance audit reveals that their HR coordinator has been requiring all employees who speak English with an accent to provide passports for I9 verification, while accepting driver's licenses and Social Security cards from employees without accents. This practice has affected 20 employees over the past 15 months. Under IRCA, what violation has occurred?

- A. No violation because passports provide the most thorough verification of identity and work authorization
- B. Document abuse discrimination — selectively requiring specific documents based on employees' accents constitutes national origin discrimination in the I9 verification process, because employees have the right to choose which acceptable documents to present and the employer cannot demand specific documents based on speech patterns or perceived national origin
- C. A violation only if any of the 20 affected employees were denied employment based on the passport requirement

D. A minor procedural issue that can be corrected through HR training with no penalty exposure

44. An employer with 55 employees has a worker who requests FMLA leave to undergo elective knee arthroscopy — a same-day outpatient procedure with an expected 2-week recovery. The worker's physician states the procedure is elective but medically recommended to address chronic knee pain that affects the worker's mobility. Under the FMLA, is this leave covered?

A. No, because elective surgical procedures are categorically excluded from FMLA coverage

B. No, because same-day outpatient procedures do not qualify as serious health conditions requiring inpatient care

C. Yes, but only for the day of the procedure, not the 2-week recovery period

D. Yes, because the procedure involves continuing treatment by a healthcare provider for a condition that causes a period of incapacity — even though the arthroscopy is elective and outpatient, the chronic knee condition requiring medical intervention and the subsequent 2-week recovery period involving incapacity qualify as a serious health condition under the FMLA

45. An employer terminates a worker for three documented violations of the confined space entry procedure over an 8-week period. Each violation involved entering a permit-required confined space without completing the required atmospheric testing and obtaining the entry permit. The employer has: the company's confined space procedure signed by the worker, three incident reports with dates and witness names, a verbal warning after the first violation, a written warning after the second, and a final written warning stating the third violation would result in termination. The worker files for unemployment benefits. What is the likely outcome?

A. The worker will receive benefits because confined space violations are classified as minor safety infractions

B. The worker will receive benefits at a reduced rate because the violations did not result in actual injury

C. The worker will likely be denied benefits because entering confined spaces without atmospheric testing on three documented occasions despite progressive warnings constitutes willful misconduct — entering a permit-required space without testing creates an immediately dangerous to life or health situation, and the deliberate repeated pattern despite training and warnings establishes disqualifying conduct

D. The unemployment agency will defer the decision until OSHA completes an investigation of the employer's confined space program

46. A contractor operating on a DavisBacon covered project has electricians who work 46 hours during a workweek. The prevailing wage specifies electrician wages of \$46.00/hour plus \$21.00/hour in fringe benefits. How must the 6 overtime hours be compensated?

A. 40 hours at \$46.00 wage plus \$21.00 fringe, and 6 overtime hours at \$69.00 wage ($1.5 \times \46.00) plus \$21.00 fringe at the straighttime rate — the overtime premium applies only to the cash wage, while the fringe benefit contribution continues at the straighttime rate for all 46 hours

B. All 46 hours at the combined overtime rate ($\$67.00 \times 1.5 = \100.50)

C. 40 hours at \$46.00 plus \$21.00, and 6 hours at \$46.00 plus \$31.50 ($1.5 \times \$21.00$)

D. No overtime because electricians with prevailing wages above \$45.00/hour are exempt

47. An employer with 35 employees has a worker who files a workers' compensation claim for a back injury. The employer's carrier accepts the claim. While on modified duty, the worker's supervisor begins requiring daily written reports justifying every task performed — a requirement not imposed on any other employee in the company's history. The worker alleges retaliation. Is the claim viable?

A. No, because daily task reports are standard modifiedduty management tools used for all lightduty workers

B. Yes, because imposing an unprecedented documentation requirement on a single employee immediately after filing a workers' compensation claim creates a strong inference of retaliation — the unique nature of the requirement (never imposed on anyone else), its timing (immediately after the claim), and its burdensome character (daily written justification of every task) all support the retaliation allegation

C. No, because documentation requirements are administrative actions that cannot constitute adverse employment actions

D. Yes, but only if the worker can prove the supervisor explicitly stated the reports were punishment for filing the claim

48. An employer with 50 employees has a worker who has been on FMLA leave for 11 weeks following major surgery. The worker's physician clears them to return with a temporary restriction: no standing for more than 2 consecutive hours. The worker's regular job as a field inspector requires standing and walking 68 hours daily at construction sites. Under the combined FMLA/ADA framework, what are the employer's options?

A. Terminate the worker because they cannot perform the essential standing function of the field inspector position

B. The employer can offer the worker the remaining 1 week of FMLA leave (12 weeks minus 11), and if the restriction continues beyond the 12th week, offer an available seated position (plan reviewer, estimating assistant, data entry) at equivalent pay while the restriction is in effect

C. Hold the field inspector position open for 6 additional months beyond FMLA exhaustion

D. The employer should evaluate the situation under both FMLA and ADA — for the remaining 1 week of FMLA, the worker retains job protection; after FMLA exhaustion, the ADA interactive process determines whether the temporary standing restriction can be accommodated through reassignment to an available equivalent position, and the employer must explore options before concluding accommodation is impossible

49. An employer's workers' compensation carrier reports the company's EMR will increase from 0.88 to 1.25 at the next renewal due to multiple serious claims. The annual base premium at EMR 1.0 is \$290,000. What is the total annual financial impact?

A. Premium increases by \$2,900 with no operational impact

B. Premium increases from \$255,200 (at 0.88) to \$310,000 (at 1.25) — a \$54,800 increase

C. Premium increases from \$255,200 (at 0.88) to \$362,500 (at 1.25) — a \$107,300 annual increase — and the EMR of 1.25 exceeds the 1.0 maximum commonly required for project prequalification, disqualifying the contractor from bidding on safety-conscious projects and compounding the financial impact through lost revenue opportunities

D. The EMR increase triggers mandatory OSHA participation in the contractor's safety program

50. A contractor organized as a sole proprietorship earns \$195,000 in net SE income with \$40,000 in W2 income from a parttime teaching position. The Social Security wage base is \$168,600. After the 92.35% adjustment, adjusted SE income is approximately \$180,068. What is the approximate selfemployment tax?

A. Approximately \$21,168 — Social Security 12.4% on \$128,600 ($\$168,600 - \$40,000$ W2) = \$15,946; Medicare 2.9% on full \$180,068 = \$5,222; no additional Medicare surtax because \$180,068 is below \$200,000; total \approx \$21,168

B. \$29,835, at the flat 15.3% on \$195,000 without any adjustments

C. \$15,946, using only the Social Security portion without Medicare

D. \$27,550, at 15.3% on the adjusted income without the W2 offset

Practice Exam 35: Answer Key and Explanations

1. D — Both members pay SE tax on their full distributive shares because both are active participants in a partnership taxed LLC. Member A owes SE tax on \$286,000 and Member B on \$234,000. Under an S Corporation election, each could set a reasonable salary and take the remainder as distributions exempt from FICA — the default partnership taxation subjects the entire distributive share to the 15.3% rate.

2. B — While the BU classification covers the building shell and insulated panel construction, ammonia refrigeration systems and blast freezer equipment are specialized process installations that may require a Mechanical Construction classification or other specialty licensing. The contractor should verify with the ACLB before committing because performing work outside authorized classifications is a licensing violation.

3. C — The general contractor faces potential ACLB disciplinary action for failing to verify the subcontractor's current license status. Relying on an unverified license number without confirming its standing constitutes a failure of due diligence. The subcontractor's revoked license means the electrical work was performed by an unlicensed entity, creating code enforcement and liability exposure for the GC.

4. A — Diverting \$90,000 of project funds to personal use while abandoning the project constitutes potential criminal theft by deception, conversion, or fraud. This criminal exposure exists separately from the civil breach of contract and the ACLB licensing violation. The contractor faces three concurrent legal tracks: criminal prosecution, civil liability for the full \$180,000, and license revocation.

5. D — The ACLB requires financial statements to be dated within 12 months of submission. A statement that is 14 months old does not reflect the applicant's current financial condition. The applicant must obtain a current compiled statement before the application can be processed, regardless of whether the underlying figures meet the minimum thresholds.

6. C — Overhead rate: $\$354,000 \div \$2,360,000 = 15\%$. Allocation: $\$1,180,000 \times 15\% = \$177,000$. Total cost: $\$1,357,000$. Selling price: $\$1,357,000 \div 0.94 = \$1,443,617$. Dividing by $(1 - \text{margin})$ ensures profit equals exactly 6% of the selling price rather than 6% of cost.

7. A — The contractor has no obligation to reduce the unit price unless the contract contains a quantity variation clause specifically allowing renegotiation. If the contract is silent, the bid unit price of \$85 applies to all actual quantities. The fact that the contractor's perunit cost decreases at higher volumes does not create an automatic obligation to share that benefit with the owner.

8. B — Volume: $8,500 \times 0.5 = 4,250 \text{ CF} \div 27 = 157.41 \text{ CY}$. With 6% waste: $166.85 \text{ CY} \times \$175 = \$29,199$. Finishing: $8,500 \times \$3.25 = \$27,625$. Total: $\$56,824$. The waste factor accounts for pump loss typical in elevated slab placement, and finishing labor is calculated on the net slab area.

9. D — The \$14,000 premium (7.9%) for the proven subcontractor is justified by the substantially lower risk of code violations and inspection failures. A fire protection subcontractor who just completed a 6month suspension for code violations poses maximum

risk on exactly the type of work where code compliance is most critical. The cost of a single failed fire inspection would far exceed \$14,000.

10. C — Without an "or equal" clause, only the architect can authorize a substitute. The contractor must submit alternatives with technical data, address the transition between the existing 60% and the replacement product, and obtain formal approval. The midproject discontinuation creates an additional complexity — ensuring compatibility between two different membrane products on the same roof.

11. A — Selfperformed: $\$35,000 \times 1.15 = \$40,250$. Subcontracted: $\$165,000 \times 1.08 = \$178,200$. Total: $\$40,250 + \$178,200 = \$218,450$. The different markup rates apply to each category based on who performs the work.

12. B — The contractor's documentation shows ownercaused delays (45 days), unanswered RFIs (12), and denied site access (3 weeks) versus only 8 days of contractor productivity shortfall. Terminating for delays predominantly caused by the owner is not a valid forcause basis. The termination will likely be converted to a termination for convenience with the corresponding compensation.

13. D — Sealant joints installed at 1/4 inch instead of the specified 3/8 inch have less movement capacity and are cracking under normal building deflection. This is a workmanship defect — the subcontractor failed to meet the dimensional specification. The warranty covers defects in materials and workmanship, making the subcontractor responsible for both the joint repairs and the water damage.

14. C — The owner discovered the defect on September 18 and notified the contractor on September 20 — both within the warranty period ending October 1. Timely notification preserves the claim. The contractor cannot defeat the warranty by citing specialist scheduling delays — the obligation attached when the claim was properly made within the warranty period.

15. A — The bulletresistant windows were not in the original contract and the security policy was adopted after the contract was signed. The contractor priced standard windows per the original specification. The \$195,000 upgrade constitutes additional scope regardless of the security justification. The school district bears the cost through a change order.

16. B — The contract specifies "actual cost plus 15%." The actual cost after the trade discount is \$7,400, not the \$8,000 list price. The correct billing is $\$7,400 \times 1.15 = \$8,510$. Billing at the prediscout price overstates the actual cost and violates the contract's pricing terms.

17. A — Firerated door assemblies must bear visible certification labels. Paintedover labels void the visible proof of fire rating. The doors must be relabeled by an authorized representative of the testing laboratory or replaced with intact assemblies. Purchase orders and photographs cannot substitute for the physical certification labels required by inspectors.

18. C — The dry rot is a concealed existing condition not represented in any contract document. The contractor relied on the absence of disclosed structural deficiencies when pricing. The actual condition differs materially from what was represented. This is a Type I differing site condition, and the \$85,000 repair is the owner's responsibility through a change order.

19. A — The paywhenpaid clause requires payment within 10 days. The deadline was April 20 (April 10 + 10 days). Payment on June 5 is 46 days late. The subcontractor is entitled to interest from April 20 through June 5 for the GC's breach of the contractual payment timeline.

20. B — The contract specifies deductive change orders at "direct cost savings." The deduction is \$38,000 in direct costs. The contractor retains the \$10,000 in overhead and profit. The deductive change order provision protects the contractor's margin on deleted scope.

21. D — The contractor's written response documents the directive as additional scope, confirms T&M cost tracking, preserves recovery rights, and keeps the project moving. The change order proposal with schedule impact provides formal documentation. This approach balances the owner's urgency with the contractor's financial protection.

22. C — Without an "or equal" clause, only the architect can authorize a substitution. The contractor must present all three alternatives with technical data, performance comparisons, and samples. The architect evaluates whether any alternative meets the specification's performance requirements and issues a formal decision.

23. A — The reverse slope creates a permanent low point where solid waste accumulates. Without continuous downhill gravity flow, the sewer develops chronic blockages requiring repeated cleaning and eventually causing sewage backups. This deficiency worsens progressively with use and cannot selfcorrect — it is a fundamental installation error requiring excavation and relaying of the affected section.

24. B — The 75decibel limit and patient care requirements prohibit concrete cutting during clinical operations. The contractor should schedule offhours work, install barriers, and use wetcutting methods. A change order addresses offhours costs not in the original contract. Patient safety in an occupied medical facility is nonnegotiable.

25. D — $SPI = \$4,100,000 \div \$4,510,000 = 0.909$ (behind schedule). $CPI = \$4,100,000 \div \$4,350,000 = 0.943$ (over budget). $EAC = \$8,200,000 \div 0.943 = \$8,695,000$. Both indices below 1.0 confirm the project is behind schedule and over budget, projecting a \$495,000 overrun.

26. B — Operating room HEPA laminar flow diffusers are a patient life safety requirement governed by strict code and accreditation standards. Standard commercial diffusers do not provide the particle filtration or unidirectional airflow pattern required for surgical infection control. All 8 operating rooms must have the specified diffusers installed at the subcontractor's expense.

27. C — Original: 115 days. Additional steel: +6 days. Mezzanine enclosure: +8 days. Both additions are on the critical path with finishtostart relationships. Revised: $4 + 12 + 18 + (24+6) + 8 + 8 + 16 + 10 + 18 + 5 = 129$ days. The project is extended by 14 days.

28. A — The specification prohibits fielddrilled bolt holes without prior written structural engineer approval. Fielddrilled holes may not meet the dimensional tolerances, edge distances, or quality standards of shopfabricated holes. The structural engineer must evaluate all 20 affected connections and determine whether remediation is required.

29. D — The contractor should phase the work into short segments during offhours, use trench plates to maintain pedestrian access between sessions, and coordinate each phase with the building manager. This approach maintains full building access as required by the contract. A change order addresses offhours work costs not in the original scope.

30. B — The CPI declining from 1.04 to 0.91 over 9 months indicates progressively worsening cost performance. The stable SPI of 1.03 shows the schedule is fine. The cost problem requires immediate investigation — material escalation, productivity decline, scope creep, or estimating errors — and corrective action before it compounds through the remaining 30%.

31. A — The inspector requires 48 hours' notice. Wednesday afternoon to Friday morning satisfies this requirement. The project manager should schedule the inspection immediately, coordinate with the elevator subcontractor on adjusted timing, and develop a contingency plan. Proactive scheduling prevents the elevator crew from arriving at an uninspected shaft.

32. D — CGL pays \$2,000,000 (peroccurrence limit for this single trench collapse). Umbrella pays \$5,000,000 (its full limit). Total coverage: \$7,000,000. Remaining judgment: \$10,000,000 – \$7,000,000 = \$3,000,000 personal exposure. This illustrates the catastrophic risk gap when combined limits are insufficient for a single severe incident.

33. C — Bonding capacity: $15 \times \$175,000 = \$2,625,000$. Existing: \$2,300,000. Available: \$325,000. The \$2,200,000 request exceeds available capacity by \$1,875,000. The surety will deny unless the contractor substantially increases working capital or completes existing projects.

34. A — Premium difference: $(\$310,000 \div \$100) \times (\$28.50 - \$8.50) \times 1.12 = 3,100 \times \$20.00 \times 1.12 = \$69,440$. The massive rate differential reflects the vast risk difference between general labor and structural steel erection at height — one of the most hazardous construction classifications.

35. B — The initial butterfly bandage treatment was first aid. The case becomes recordable when the physician applies 6 sutures — sutures constitute medical treatment beyond first aid under OSHA definitions. The case is recorded with the original injury date because the followup is a continuation of the original workrelated laceration.

36. 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 190 employees in construction, this employer meets the electronic reporting threshold.

37. C — Total recordable: $4+3+7+1 = 15$. $TRIR = (15 \times 200,000) \div 300,000 = 10.0$. DART cases: $4+3+1 = 8$. $DART = (8 \times 200,000) \div 300,000 = 5.3$. The 7 medicaltreatmentonly cases are excluded from DART. Both rates exceed construction industry averages.

38. A — Terminal illness under hospice care is unquestionably a serious health condition. The employer has 60 employees (above threshold) and the worker has 7 years of tenure (exceeding eligibility). The FMLA makes no distinction between active medical treatment and endoflife hospice care — the 12week request is within the maximum entitlement.

39. B — Straighttime + premium: $(\$44.00 \times 50) + \$320 = \$2,520$. Regular rate: $\$2,520 \div 50 = \50.40 . Overtime premium: $\$50.40 \times 0.5 \times 10 = \252.00 . Total gross: $\$2,520 + \$252 = \$2,772.00$. The nondiscretionary certification premium increases the regular rate and overtime premium.

40. D — After FMLA exhaustion, the ADA interactive process applies. The employer must evaluate whether the overhead restriction can be accommodated through reassignment to available positions, mechanical aids, or role restructuring. The employer cannot terminate without completing the interactive process and demonstrating no reasonable accommodation exists.

41. C — Under DavisBacon, the overtime premium applies to cash wage plus prorated nondiscretionary bonuses. Regular rate: $(\$24.00 \times 48 + \$180) \div 48 = \$27.75$. Overtime premium: $\$27.75 \times 0.5 \times 8 = \111.00 . Fringe at \$11.00 straighttime for all 48 hours. The safety bonus increases the effective overtime cost.

42. A — The strongest evidence combines: 14 years of excellent reviews contradicting performance justification, replacement with a significantly younger worker at lower pay, a pattern of similar replacements, and "modernization" language as a coded age reference. Together these create compelling circumstantial evidence that age was the butfor cause.

43. B — Requiring specific documents based on employees' accents constitutes document abuse discrimination under IRCA. Employees choose which acceptable documents to present, and the employer cannot demand passports based on speech patterns. The employer is vicariously liable for the HR coordinator's discriminatory conduct affecting 20 employees.

44. D — The procedure involves continuing treatment for a condition causing incapacity. Even though the arthroscopy is elective and outpatient, the chronic knee condition requiring medical intervention and the 2week recovery period involving incapacity qualify as a serious health condition. The FMLA does not categorically exclude elective procedures that involve incapacity.

45. C — Three documented confined space entries without atmospheric testing despite progressive warnings constitutes willful misconduct. Entering a permitrequired space without testing creates an IDLH situation. The deliberate repeated pattern despite training and warnings establishes disqualifying conduct that unemployment agencies recognize.

46. A — Under DavisBacon, the overtime premium applies only to the cash wage. Straight time: $40 \text{ hours} \times (\$46.00 + \$21.00)$. Overtime: $6 \text{ hours} \times (\$69.00 \text{ wage } [1.5 \times \$46.00] + \$21.00 \text{ fringe at straighttime})$. The fringe continues at straighttime for all 46 hours.

47. B — Imposing unprecedented daily written task justification on a single employee immediately after a workers' comp filing creates a strong retaliation inference. The unique requirement (never imposed on anyone else), its timing, and its burdensome character all support the claim. The employer must provide credible nonretaliatory explanations.

48. D — For the remaining 1 week of FMLA, the worker retains job protection. After FMLA exhaustion, the ADA interactive process applies — the employer must explore reassignment to available equivalent positions or other accommodations for the temporary standing restriction before concluding accommodation is impossible.

49. C — Premium at 0.88: \$255,200. Premium at 1.25: \$362,500. Increase: \$107,300 annually. The 1.25 EMR also exceeds the 1.0 prequalification threshold, disqualifying the contractor from safetyconscious projects and compounding the financial impact through lost bidding opportunities beyond the direct premium increase.

50. A — W2 wages of \$40,000 reduce the SS wage base: $\$168,600 - \$40,000 = \$128,600$. Social Security (12.4%) on $\$128,600 = \$15,946$. Medicare (2.9%) on $\$180,068 = \$5,222$. No surtax because $\$180,068$ is below $\$200,000$. Total: approximately $\$21,168$. The W2 offset prevents doublecounting of the wage base.