PRACTICE EXAM 14: MISSISSIPPI LAW AND BUSINESS MANAGEMENT SIMULATION (50 QUESTIONS)

Time Allowed: 2 Hours | 50 Questions | **Passing Score:** 70% (35 Correct)

This is an openbook examination. You may use the NASCLA Contractors Guide to Business, Law and Project Management, Mississippi 6th Edition and a silent, nonprinting, nonprogrammable calculator.

1. A contractor's project has a costplusfixedfee contract with a fee of $95,000. During construction, the owner directs a major scope reduction that decreases the total project cost by $300,000. The contractor argues the fixed fee should remain at $95,000 because it was agreed upon at contract execution. The owner argues the fee should be reduced proportionally to the scope reduction. Under standard costplusfixedfee contract principles, who is correct?

A. The owner is always correct because fixed fees are automatically recalculated whenever the project scope changes by more than 10%

B. The contractor is always correct because fixed fees are locked at contract execution and can never be modified for any reason

C. Both parties are partially correct — the fee should be split between the original and reduced amounts as a compromise

D. The contractor is generally correct — the defining characteristic of a fixed fee is that it remains constant regardless of actual costs; however, a major scope reduction may provide grounds for the owner to negotiate a fee adjustment through a formal change order, because the fee was originally calibrated to a larger scope of work

2. A contractor's project involves installing a new mechanical system in an existing 1972 commercial building. During demolition of a mechanical room ceiling, the crew encounters pipe insulation that is white, fibrous, and crumbles easily when touched. The crew has already

broken several sections of the insulation while removing old ductwork. What is the most critical immediate action?

A. Continue demolition wearing standard dust masks because white fibrous insulation from the 1970s is typically fiberglass, not asbestos, and poses no health risk

B. Stop all work in the mechanical room immediately, evacuate workers, secure the area to prevent further disturbance, and arrange for qualified asbestos testing before resuming any work — friable white insulation in a 1972 building has a high probability of containing asbestos, and the crew has already disturbed the material, potentially releasing dangerous fibers

C. Collect a sample and mail it to a testing laboratory while continuing demolition in the adjacent areas of the building

D. Spray the insulation with water to suppress dust and continue demolition because wetting eliminates the fiber release hazard

3. A contractor operating as a Ccorporation earns $600,000 in taxable corporate income. The corporation pays the 21% federal corporate tax and Mississippi's 5% corporate income tax (on income above $10,000). After paying taxes, the corporation distributes $200,000 in dividends. What is the approximate total tax burden on the distributed $200,000?

A. The $200,000 in dividends is subject to double taxation — the corporatelevel taxes have already been paid on the full $600,000 (federal $126,000 + Mississippi $29,500 = $155,500), and the shareholders will pay personal income tax on the $200,000 dividends at their applicable qualified dividend rate, creating two layers of taxation on the distributed portion

B. The $200,000 in dividends is taxfree because corporate income tax on the full $600,000 satisfies the total tax obligation for both the entity and the shareholders

C. The $200,000 is taxed only at the shareholder level because Ccorporation dividends receive a credit that fully offsets the corporatelevel tax already paid

D. The $200,000 is taxed at a combined rate of exactly 26% (21% federal + 5% Mississippi) with no additional shareholderlevel taxation

4. A contractor's project superintendent discovers that the concrete subcontractor has been placing concrete without obtaining the required prepour inspection from the building inspector. Three foundation footings have been poured and the concrete has cured. The building inspector has not inspected any of the rebar placement or formwork for these footings. What is the most likely consequence?

A. No consequence because the concrete subcontractor's internal quality control records are sufficient to replace the building inspector's independent verification

B. A minor documentation issue that can be resolved by having the inspector sign a retroactive approval based on the contractor's photographs of the rebar before the pour

C. The building inspector may require the contractor to demonstrate compliance through alternative verification methods — such as groundpenetrating radar, core samples, or other nondestructive testing — at the contractor's expense, or in the worst case, may require removal and replacement of the footings if compliance cannot be verified

D. The concrete subcontractor's license is automatically suspended because missing a required inspection is a licensing violation under Mississippi law

5. A contractor's project has a fixedprice contract for $1,200,000. The original estimate includes $1,020,000 in costs and $180,000 in profit (15% margin). At 80% completion, the job cost report shows actual costs of $867,600 versus a prorated budget of $816,000 (80% × $1,020,000). The revised cost to complete the remaining 20% is $230,000. What is the projected total cost and projected profit?

A. Projected total cost is $1,020,000 and profit remains $180,000 because the project is still within the original budget

B. Projected total cost is $867,600 because only incurred costs are relevant for financial reporting

C. Projected total cost is $1,200,000 because fixedprice contracts always consume the full contract amount

D. Projected total cost is $1,097,600 ($867,600 + $230,000), reducing projected profit from $180,000 to $102,400 — the project is $77,600 over the original cost estimate, with the 80% checkpoint showing $51,600 in overrun ($867,600 vs. $816,000 budget) and the remaining 20% projected at $26,000 over budget ($230,000 vs. $204,000)

6. A Mississippi contractor holds a commercial Building Construction license. The contractor is asked to perform a $45,000 residential addition on a singlefamily home. Can the contractor perform this work under the commercial Building Construction license?

A. Yes, because a commercial Building Construction license authorizes the holder to perform residential work — the commercial license encompasses residential construction within its broader scope

B. No, because commercial and residential licenses are completely separate classifications and a commercial license holder cannot perform any residential work under any circumstances

C. Yes, but only if the residential project value does not exceed $25,000, which is the crossover threshold from commercial to residential work

D. No, because the $45,000 project value exceeds the $10,000 residential exemption threshold and the contractor must obtain a separate Residential Builder license

7. A contractor's project involves a 22footdeep excavation for a building basement. The soil is classified as Type B. The contractor plans to use a combination protective system: a trench box (shield) in the lower portion and sloping in the upper portion. For the sloped upper section, what is the maximum allowable slope angle for Type B soil?

A. ¾:1 (53 degrees), which is the maximum slope for Type A soil and too steep for Type B

B. 1½:1 (34 degrees), which is the maximum slope for Type C soil and more conservative than required for Type B

C. 1:1 (45 degrees from horizontal), meaning for every 1 foot of depth in the sloped section, the excavation wall extends 1 foot horizontally — this is the maximum slope permitted for Type B soil

D. Vertical (90 degrees), because the trench box in the lower portion provides sufficient protection to allow vertical walls in the upper section

8. A contractor's employee is classified as nonexempt and works the following hours during a single workweek: Monday 10 hours, Tuesday 8 hours, Wednesday 10 hours, Thursday 8 hours, Friday 10 hours. The employee's regular rate is $38.00 per hour. What is the correct gross pay?

A. $1,748, calculated at the straighttime rate for all 46 hours because the FLSA overtime threshold for construction is 48 hours

B. The correct gross pay is $1,862 — 40 hours at the regular rate of $38.00 ($1,520) plus 6 overtime hours at $57.00 ($342), because the FLSA requires timeandahalf for all hours exceeding 40 in a workweek regardless of the daily hours worked

C. $1,900, calculated at doubletime for all hours exceeding 8 in a single day

D. $1,976, calculated with overtime starting after the 8th hour each day rather than after the 40th hour in the week

9. A contractor's project schedule uses CPM. The schedule shows four parallel paths: Path A = 55 days, Path B = 62 days, Path C = 58 days, Path D = 49 days. A 3day delay occurs on Path C. Does this delay affect the project completion date?

A. Yes, because any delay to any path always extends the project completion date by the full delay amount

B. Yes, because Path C at 61 days becomes the new critical path, exceeding Path B by 1 day

C. No, because only Path B delays can affect the project completion

D. No, because Path C originally had 4 days of float (62 − 58 = 4), and the 3day delay consumes only 3 of those 4 float days — Path C is now at 61 days, still 1 day shorter than the critical Path B at 62 days, so the project completion date remains at 62 days

10. A contractor's financial statements show the following: revenue $4,200,000, cost of construction $3,360,000, G&A expenses $546,000. The contractor's surety company requires a minimum net profit margin of 5% for continued bonding. Does the contractor meet this requirement?

A. Yes — net profit is $294,000 ($4,200,000 − $3,360,000 − $546,000), and net profit margin is 7.0% ($294,000 ÷ $4,200,000), which exceeds the surety's 5% minimum threshold

B. No — net profit margin is 4.2%, falling below the 5% minimum and potentially triggering a bonding capacity reduction

C. Yes — gross profit margin is 20%, which is the metric sureties evaluate rather than net profit margin

D. The calculation cannot be performed without the contractor's total assets and liabilities because sureties evaluate net worth ratios, not profit margins

11. A contractor's project involves installing a temporary stairway in a building under construction. OSHA requires stairways used during construction to meet specific standards. The contractor installs a temporary stairway with a uniform riser height of 9 inches. OSHA's stairway standard for construction specifies a maximum riser height. Does this stairway comply?

A. Yes, because OSHA allows risers up to 12 inches for temporary construction stairways used only by construction workers

B. Yes, because a 9inch riser is within the acceptable range for both temporary construction stairways and permanent building stairs

C. No, because OSHA's construction stairway standard specifies that stairway risers must not exceed 9½ inches and the variation between the tallest and shortest risers must not exceed ¼ inch — while the 9inch risers themselves are within the maximum, all risers must be uniform, which this stairway appears to satisfy

D. No, because OSHA requires a maximum riser height of 7 inches for all construction stairways regardless of whether they are temporary or permanent

12. A contractor's project has the following WIP data: contract price $1,900,000, estimated total cost $1,615,000, actual costs incurred $1,130,500, billings to date $1,200,000. Using the percentageofcompletion method, what is the earned revenue and the billing status?

A. Earned revenue is $1,200,000 and the project is properly billed because revenue equals billings under GAAP

B. Earned revenue is $1,330,000 (70% × $1,900,000) because completion is 70% ($1,130,500 ÷ $1,615,000), and the project is underbilled by $130,000 ($1,330,000 earned − $1,200,000 billed) — the contractor has performed $130,000 more work than has been invoiced

C. Earned revenue is $1,130,500 (equal to costs) and the project is overbilled by $69,500 because billings exceed costs

D. Earned revenue is $1,900,000 because the project is past 50% completion and full revenue recognition is required

13. A contractor operating as a general partnership has three partners with ownership percentages of 50%, 30%, and 20%. A $450,000 judgment is entered against the partnership for a construction defect claim that exceeds the partnership's insurance coverage. The 50% partner has substantial personal assets, while the 30% and 20% partners have minimal personal wealth. Under joint and several liability, how can the creditor collect?

A. The creditor must collect proportionally — $225,000 from the 50% partner, $135,000 from the 30% partner, and $90,000 from the 20% partner

B. The creditor can only collect against partnership assets and cannot pursue individual partners for any amount

C. The creditor must first exhaust partnership assets before pursuing any individual partner for the remaining balance

D. The creditor can pursue any individual partner for the full $450,000 regardless of ownership percentage — the 50% partner with substantial personal assets is the most likely target because joint and several liability allows the creditor to collect the entire judgment from any single partner

14. A contractor's project involves constructing a commercial building on a site where the geotechnical report indicates the water table is 6 feet below grade. The foundation design requires excavation to 10 feet. During excavation, the contractor encounters the water table at 6 feet as predicted and must implement dewatering to continue excavating to 10 feet. The contractor submits a change order for the dewatering costs. Is the change order justified?

A. Yes, because all dewatering costs are automatically change order items regardless of what was known before construction began

B. Yes, because the geotechnical report identified the water table but did not specify the exact dewatering method or cost

C. No, because the geotechnical report disclosed the water table at 6 feet before the contract was signed — the contractor knew about this condition and should have included dewatering costs in the bid, making it a foreseeable condition rather than a differing site condition

D. No, but only because the water table depth matched the geotechnical prediction exactly — if the water table had been found at a different depth, a change order would be justified

15. A contractor's employee works on a project where the specifications require all exterior concrete to be sealed with a penetrating sealer within 28 days of placement. The contractor applies the sealer 45 days after placement because the sealer was backordered. During the following winter, the concrete develops surface scaling from freezethaw damage. The owner demands the contractor repair the damaged concrete. What is the contractor's liability position?

A. The contractor is likely liable because they failed to apply the sealer within the specified 28day window — the late application may have allowed moisture to penetrate the concrete surface before sealing, contributing to the freezethaw damage, and the contractor's failure to comply with the specification timeline is a workmanship deficiency

B. The contractor is not liable because freezethaw damage is classified as an act of God that is excluded from all construction warranties

C. The contractor is not liable because the sealer manufacturer is responsible for ensuring timely product availability

D. The contractor is liable only for the cost of the sealer application, not for the freezethaw damage, because the damage was caused by weather rather than by the late application

16. A contractor receives a notice from OSHA that a complaint has been filed alleging unsafe conditions related to fall protection on a commercial roofing project. The notice indicates an inspection will be scheduled. Before the inspection occurs, the contractor corrects all fall protection deficiencies. During the inspection, the compliance officer finds the site in full compliance. Can the contractor still be cited?

A. No, because OSHA can only cite conditions observed during the actual inspection — if the site is in compliance when the officer arrives, no citation can be issued

B. No, because correcting hazards before an inspection demonstrates good faith that automatically precludes any enforcement action

C. Yes, but only if the original complaint was filed by an OSHA compliance officer rather than a worker, because worker complaints cannot form the basis of a citation

D. Yes, because OSHA can cite hazards that existed at the time of the complaint if the compliance officer finds evidence — such as photographs, witness statements, daily reports, or the complaint itself — that violations occurred even though they have been corrected before the inspection

17. A contractor is reviewing a lump sum (fixedprice) proposal for a subcontractor's scope of work. The subcontractor's proposal is $340,000. The contractor's own independent estimate for the same scope is $295,000. The subcontractor's proposal includes a detailed scope description that matches the contract documents. What should the contractor consider before rejecting the higher proposal?

A. The contractor should accept any subcontractor proposal that falls within 20% of the independent estimate because the 20% tolerance is the industry standard for subcontractor pricing variations

B. The contractor should evaluate whether the subcontractor's proposal includes scope items that the contractor's estimate may have missed, whether the subcontractor's higher price reflects more realistic labor productivity rates or material costs, and whether the subcontractor's qualifications and track record justify a premium — the $45,000 difference may indicate the contractor's estimate is too low rather than the subcontractor's price being too high

C. The contractor should automatically reject any proposal more than 10% above the independent estimate because higher prices indicate the subcontractor is inflating their bid

D. The contractor should select the subcontractor with the lowest price without any further evaluation because the lowest price always represents the best value

18. A contractor's project involves work on a federally funded highway project subject to the DavisBacon Act. The contractor's payroll records show that a carpenter was paid $32.00 per hour during a week when the carpenter worked 48 hours. The prevailing wage determination specifies a basic rate of $35.50 for carpenters plus $16.00 fringe. What violations have occurred?

A. Two violations — the contractor is paying $3.50 per hour below the required basic rate ($32.00 vs. $35.50), which is a DavisBacon prevailing wage violation for every hour worked, and the contractor may also be failing to provide the required $16.00 fringe benefit package (either as benefits or cash) based on the information provided

B. Only an overtime violation because the carpenter worked 48 hours and DavisBacon projects require overtime after 40 hours

C. No violations because the $32.00 hourly rate exceeds the federal minimum wage and DavisBacon only requires compliance with minimum wage law

D. Only a fringe benefit violation because the basic rate of $32.00 is within the acceptable $4.00 tolerance for prevailing wage variations

19. A contractor operates a construction business as a sole proprietor and is considering converting to an LLC. The contractor's primary motivation is protecting personal assets from business liabilities. However, the contractor frequently uses personal credit cards for business purchases and deposits business revenue into a personal bank account. What risk does this commingling create for the LLC's liability protection?

A. No risk because LLC liability protection is absolute and cannot be affected by the member's financial practices

B. No risk because commingling of personal and business funds is standard practice for singlemember LLCs

C. The commingling of personal and business funds may allow a court to "pierce the veil" of the LLC — if a creditor can demonstrate that the member treated the LLC as their alter ego rather than as a separate entity, the court may disregard the LLC's limited liability protection and hold the member personally liable for business debts

D. The risk is limited to a $5,000 IRS penalty for improper bookkeeping practices, with no effect on the LLC's liability protection

20. A contractor's project involves exterior masonry work on a 4story commercial building during winter months in Mississippi. The specifications state that mortar shall not be mixed or

used when the ambient temperature is below 40°F or when the temperature is expected to drop below 40°F within 24 hours of placement. The morning temperature is 38°F but the forecast shows warming to 55°F by midday. Can the contractor proceed with the masonry work?

A. Yes, because the temperature is forecast to exceed 40°F within a few hours and the warming trend satisfies the specification's intent

B. Yes, because Mississippi's mild climate makes the 40°F threshold unnecessary — the specification was written for northern states and should be interpreted as advisory in the South

C. No, but the contractor can proceed if antifreeze admixtures are added to the mortar to prevent freezing below 40°F

D. No, because the ambient temperature is currently 38°F — below the specification's 40°F minimum for mixing and placing mortar; the contractor must wait until the temperature rises above 40°F and implements cold weather masonry protection measures before proceeding

21. A contractor's project manager receives a claim from a concrete supplier for $28,000 in unpaid invoices for concrete delivered to the project over the past 90 days. The project manager believes the invoiced quantities are higher than the quantities actually delivered. Before paying the disputed amount, what documentation should the project manager review?

A. The delivery tickets for each load (showing batch plant time, truck number, quantity, and mix design), compared against the daily reports documenting deliveries received on site, the quantities verified by the contractor's field personnel at the time of delivery, and the project's concrete placement records — this comparison will identify any discrepancies between what the supplier claims was delivered and what the contractor's records show was received

B. Only the supplier's monthly statements, because the supplier's records are the sole authoritative source for delivery quantities

C. Only the project's bank statements to verify whether previous concrete payments were made on time

D. Only the architect's payment certifications because the architect independently verifies all material quantities

22. A contractor's project has the following situation: the mechanical subcontractor submits a payment application for $85,000, which includes $62,000 for installed work and $23,000 for materials stored on site. The stored materials are stacked in an open area with no cover, security, or insurance verification. Should the general contractor approve the stored materials portion of the billing?

A. Yes, because the subcontractor's payment application serves as sufficient certification that the materials are on site and properly stored

B. No, until the stored materials are properly secured, protected from weather damage, and the subcontractor provides documentation including supplier invoices, delivery receipts, photographs showing proper storage conditions, and proof that the materials are insured against damage or theft — approving payment for unsecured, unprotected stored materials exposes the contractor to risk if the materials are damaged, stolen, or deteriorate before installation

C. Yes, but the general contractor should reduce the stored materials billing by 25% as a risk discount for materials stored in an open area

D. No, because stored materials can never be included in progress payment applications regardless of the storage conditions

23. A contractor's project involves demolishing a section of an existing parking garage to make way for a new building addition. The demolition plan calls for a controlled progressive demolition starting from the top level down. During demolition of the second level, an unexpected structural failure causes a section of the first level to collapse. No workers are injured because the collapse occurs during a lunch break. What OSHA reporting obligation exists?

A. The collapse must be reported to OSHA within 8 hours because structural collapses are classified in the same reporting category as fatalities

B. The collapse must be reported within 24 hours because it constitutes a catastrophic structural failure even though no injuries occurred

C. No OSHA injury reporting is required because no workers were injured, but the incident should be investigated internally to determine the cause and prevent recurrence — and the contractor must ensure the remaining structure is evaluated by a structural engineer before work resumes

D. No reporting or investigation is required because the collapse occurred during a period when no workers were present

24. A contractor's project has been substantially delayed by an ownerdirected redesign of the building's exterior facade. The redesign adds 6 weeks to the project schedule and $340,000 in additional costs. The contractor submits a change order for the cost and time impacts. The owner approves the $340,000 cost increase but denies the 6week time extension, arguing the contractor should "make up the time" through schedule compression. Is the owner's position reasonable?

A. No, because a change that adds significant cost almost always adds time — the owner cannot unilaterally add scope and cost while refusing to extend the schedule, and directing the contractor to accelerate at the contractor's expense amounts to a constructive change that may entitle the contractor to additional acceleration costs

B. Yes, because owners have the absolute right to set completion dates regardless of scope changes

C. Yes, because contractors are expected to maintain the original completion date through overtime and additional crew deployment at no additional cost

D. No, but only because the time extension exceeds 4 weeks — time extensions of 4 weeks or less can be denied regardless of the scope change

25. A contractor discovers that a material supplier has been delivering concrete blocks that do not meet the specified compressive strength. The blocks have already been installed in exterior loadbearing walls on two floors of the building. Testing confirms the blocks are 15% below the specified strength. What must the contractor do?

A. Accept the nonconforming blocks and add additional reinforcement to compensate for the reduced strength, without notifying the architect or structural engineer

B. Demand a credit from the supplier for the cost difference between the specified and delivered blocks, and continue construction without any structural evaluation

C. Notify the architect and structural engineer immediately with the test results, and request an engineering evaluation of whether the asbuilt walls with the nonconforming blocks can safely support the design loads — if the evaluation determines the walls are inadequate, the contractor may be required to remove and replace the affected sections at the contractor's expense, with recovery sought from the supplier

D. Accept the blocks because a 15% strength reduction is within standard construction tolerances for masonry block and does not require notification or evaluation

26. A contractor's project involves installing a commercial elevator. The elevator subcontractor has completed the installation and the elevator passes the initial state inspection. Six months later, the elevator malfunctions and a passenger is injured. The investigation reveals a manufacturing defect in the door sensor that was not detectable during the initial inspection. Who bears potential liability?

A. Multiple parties may bear liability — the elevator manufacturer for the defective door sensor (product liability), the elevator subcontractor for the installation and any failure to identify the defect during commissioning, and potentially the general contractor under the prime contract's

warranty provisions; the specific liability allocation depends on the defect's nature, the installation procedures, and the contractual relationships

B. Only the building owner is liable because the elevator passed inspection and the owner accepted the building at substantial completion

C. Only the state elevator inspector is liable because the inspector certified the elevator as safe during the initial inspection

D. Only the elevator manufacturer is liable because manufacturing defects are exclusively the manufacturer's responsibility under strict product liability law

27. A contractor's project superintendent observes that a concrete pumping operation is creating significant overspray that is coating several workers' personal vehicles parked adjacent to the construction site. The superintendent takes no action. One vehicle owner — a subcontractor's employee — submits a $3,200 claim for vehicle detailing and paint damage. Which insurance policy responds?

A. The vehicle owner's personal auto insurance responds because vehicles parked near construction sites assume the risk of constructionrelated damage

B. The contractor's CGL policy responds — the damage to the subcontractor employee's vehicle is thirdparty property damage caused by the contractor's operations (concrete pumping overspray), which is a standard Coverage A claim under the CGL policy

C. The contractor's builder's risk policy responds because the damage occurred during active construction operations on the project site

D. No insurance responds because the superintendent took no action and the damage was caused by a subcontractor operation rather than the general contractor's direct work

28. A contractor operating as an Scorporation has one shareholderemployee. The shareholder receives a salary of $80,000 and distributions of $160,000. The IRS determines the reasonable salary for this role is $120,000. What is the total amount of FICA taxes that should have been paid on the reclassified $40,000 ($120,000 − $80,000)?

A. $3,060, representing only the employee's share of FICA (7.65% × $40,000)

B. $6,120, representing only the employer's share of FICA because the reclassification shifts the burden entirely to the company

C. $0, because the IRS can reclassify distributions as wages but cannot retroactively assess FICA taxes

D. $6,120, representing both the employer and employee shares combined (15.3% × $40,000) — when distributions are reclassified as wages, both the employer's 7.65% and the employee's 7.65% FICA taxes must be paid on the reclassified amount, plus penalties and interest

29. A contractor's project involves the renovation of a hospital that must remain operational during construction. The contract requires the contractor to maintain infection control measures during all demolition and construction activities. During ceiling demolition above an active patient care area, the contractor fails to install the required negative air pressure containment barrier. Dust from the demolition infiltrates the patient care area. What regulatory and contractual violations have occurred?

A. Only a specification violation for failing to install the containment barrier — no regulatory violations because OSHA does not regulate dust exposure in occupied healthcare facilities

B. Only an OSHA violation for failing to control worker dust exposure — the impact on hospital patients is not the contractor's regulatory responsibility

C. Both specification and regulatory violations — the contractor violated the contract's infection control requirements, and depending on the circumstances, may have violated OSHA standards for dust control affecting both workers and building occupants, as well as potentially triggering Joint Commission or state health department scrutiny for compromising patient safety in an active healthcare facility

D. Only a Joint Commission violation because OSHA and contract specifications do not address infection control during healthcare facility renovation

30. A contractor's project manager is preparing the monthly WIP schedule for the surety company review. The project manager realizes that one project's estimated cost to complete is based on a 3monthold estimate that has not been updated despite significant scope changes and cost overruns discovered since that estimate was prepared. The project manager submits the WIP schedule using the outdated estimate because "the numbers look better." What professional and legal risk does this create?

A. Submitting a WIP schedule with knowingly outdated estimates that present a more favorable picture than reality constitutes a misrepresentation to the surety — this can damage the contractor's credibility, jeopardize the bonding relationship, and potentially constitute fraud if the surety relies on the inaccurate information to make bonding decisions

B. No risk because WIP schedules are preliminary estimates that carry no legal significance

C. Minor risk limited to the surety requesting updated estimates at the next review cycle

D. No risk because the project manager is not responsible for the accuracy of costtocomplete estimates — that responsibility falls solely on the estimating department

31. A contractor is reviewing a construction contract that includes a "waiver of consequential damages" clause. The clause is mutual — both the owner and contractor waive the right to recover consequential damages from each other. During construction, the contractor's delay causes the owner to lose $500,000 in anticipated rental income from tenants who cannot occupy the building on time. Can the owner recover this lost rental income?

A. Yes, because rental income losses are classified as direct damages that are not affected by a waiver of consequential damages

B. Yes, because mutual waiver clauses are unenforceable when the consequential damages exceed $250,000

C. No, because the owner can only recover liquidated damages for delay — actual consequential damages like lost rental income can never be claimed regardless of whether a waiver exists

D. No, because lost rental income is a consequential damage — it is an indirect financial loss that flows as a consequence of the delay, and the mutual waiver of consequential damages bars the owner from recovering this type of loss; the owner's remedy is limited to direct damages and any applicable liquidated damages

32. A contractor's project involves installing a commercial sprinkler system. The fire sprinkler subcontractor submits shop drawings showing sprinkler head locations that differ from the fire protection engineer's design drawings. The subcontractor claims their locations provide better coverage based on the manufacturer's recommended spacing. What should the contractor do?

A. Accept the subcontractor's revised locations because the manufacturer's recommendations take precedence over the engineer's design

B. Submit both the engineer's original design and the subcontractor's proposed revision to the architect for review — material deviations from the approved design require the fire protection engineer's evaluation and written approval before installation, even if the subcontractor believes their spacing provides better coverage

C. Install the subcontractor's revised locations because the subcontractor has more sprinkler installation experience than the engineer

D. Reject the subcontractor's proposal outright without submitting it for review because any deviation from the original drawings is automatically noncompliant

33. A contractor's annual overhead costs include: office rent $48,000, administrative salaries $110,000, company insurance $55,000, vehicle expenses $22,000, professional fees $18,000, advertising $12,000, technology costs $15,000, and office supplies $8,000. Annual direct cost volume is $1,800,000. What is the overhead rate?

A. 16%, calculated by dividing total overhead ($288,000) by annual direct cost volume ($1,800,000) — this rate must be applied to every project's direct costs during estimating to ensure each project carries its proportional share of the company's operating expenses

B. 12%, calculated by dividing overhead by annual revenue rather than by direct cost volume

C. 20%, calculated by adding a standard 4% contingency to the base overhead rate

D. 288%, calculated by dividing direct cost volume by total overhead, which inverts the correct formula

34. A contractor is performing work on a commercial project and discovers that the structural drawings contain an error — a beam size is specified as W12×26 but the structural calculations require a W14×30 to support the design loads. The contractor has not yet ordered the steel. What is the correct course of action?

A. Order the W14×30 beam without notification because the larger beam provides greater structural capacity and is therefore the safer choice

B. Order the W12×26 as shown on the drawings because the contractor is obligated to build exactly what the drawings show regardless of any perceived discrepancy

C. Submit an RFI to the architect identifying the apparent conflict between the structural calculations and the structural drawings, and do not order any steel until the design team resolves the discrepancy and provides written direction specifying the correct beam size

D. Order both beam sizes and install whichever one the structural inspector approves during the field inspection

35. A contractor has completed all work on a project, submitted final closeout documents, and received the architect's certification of final completion. The contract specifies that retainage of $78,000 is to be released within 30 days of final completion. Sixty days have passed and the owner has not released the retainage, claiming they want to hold it as "warranty security." Is the owner's position valid?

A. Yes, because owners have an inherent right to retain funds as warranty security for the full duration of the warranty period

B. Yes, because retainage provisions are discretionary guidelines rather than enforceable contract terms

C. No, because the owner's right to withhold retainage expires at substantial completion, and the contractor should have filed a lien at that point rather than waiting for final completion

D. No, because the contract specifies retainage release within 30 days of final completion — the architect has certified final completion, all conditions for release have been met, and the owner's unilateral decision to hold the retainage as "warranty security" violates the contractual release terms; the contractor may file a lien and pursue legal action for breach of the payment obligation

36. A contractor's project involves a tenant improvement in a leased commercial space. The tenant (contractor's client) approves all work. After construction, the building landlord discovers the contractor removed a firerated wall assembly without replacing the fire rating. The building inspector orders the contractor to restore the fire rating. The tenant argues that they authorized the wall removal. Who is responsible for restoring the fire rating?

A. The building inspector is responsible because they should have caught the fire rating issue during the routine building inspection schedule

B. The contractor is responsible because the removal of a firerated assembly without maintaining the fire rating violates the building code — the tenant's authorization does not override code requirements, and the contractor has an independent obligation to perform work in compliance with applicable codes regardless of who authorized the scope

C. The landlord is solely responsible because they own the building and are responsible for all building code compliance

D. The tenant is solely responsible because they authorized the wall removal and should have verified the fire rating requirements before directing the contractor

37. A contractor's project is governed by a fixedprice contract for $2,800,000. The contractor's original estimate included a 4% contingency ($112,000) in the bid price. During construction, the contractor encounters no significant unforeseen conditions. At project completion, $95,000 of the contingency has been used for minor unforeseen items and $17,000 remains unused. What happens to the $17,000?

A. The contractor retains the $17,000 as part of the total profit — in a fixedprice contract, the bid price is the contract price, and the difference between actual costs and the contract price belongs to the contractor regardless of whether it comes from unused contingency, labor savings, or any other source

B. The $17,000 must be returned to the owner because unused contingency in a fixedprice contract belongs to the project owner

C. The $17,000 must be disclosed to the owner in the final accounting and a credit issued for the unused portion

D. The $17,000 is placed in a warranty escrow account and released to the contractor after the warranty period expires

38. A contractor's project involves installing underground storm drainage pipes. The specifications require the pipe bedding to be compacted to 95% Standard Proctor density. The contractor's crew places the bedding material but does not perform any compaction testing. After backfilling, settlement occurs over the pipe run, damaging the newly installed parking lot surface above. The owner demands the contractor repair the settlement damage. What is the contractor's liability?

A. The contractor is not liable because settlement is a natural soil process that occurs regardless of compaction quality

B. The contractor is not liable because the specification's compaction requirement is a performance target that does not require actual testing documentation

C. The contractor is liable only for recompacting the bedding material but not for the parking lot surface damage because surface damage is consequential

D. The contractor is liable because the specification required 95% compaction and the contractor performed no compaction testing to verify compliance — the settlement is a foreseeable consequence of inadequate compaction, and the contractor must repair both the pipe bedding and the damaged parking lot surface at their own expense

39. A contractor employs 22 workers. One employee — a 50yearold equipment operator with 15 years of experience — is terminated during a reduction in force. The contractor retains three younger, less experienced equipment operators. The terminated employee files an age discrimination complaint under the ADEA. What is the employer's strongest defense?

A. The ADEA does not apply because the employer has fewer than 25 employees and falls below the ADEA's coverage threshold

B. The employer's strongest defense is demonstrating that legitimate, nondiscriminatory business factors — such as the retained operators' specific certifications, specialized skills, projectspecific experience, or lower salary costs — drove the RIF decision, and that the terminated employee's age was not a factor; documented performance evaluations, RIF selection criteria, and evidence of consistent application of those criteria are essential

C. The ADEA protects only employees over age 55, and the 50yearold employee falls below the protected age threshold

D. The employer's strongest defense is that equipment operators are exempt from ADEA protection because the position requires physical fitness that inherently favors younger workers

40. A contractor's project involves working near an active railroad line. The project specifications require a minimum 25foot setback from the nearest rail for all construction activities. A crane operator positions the crane 20 feet from the rail to complete a critical steel erection lift. The crane's boom swing radius extends to within 10 feet of the rail when fully extended. What violation has occurred, and what is the primary risk?

A. The crane positioning at 20 feet and the boom swing at 10 feet both violate the 25foot setback specification — the primary risk is the crane or boom being struck by a passing train, which could cause the crane to topple, the load to fall, and potentially fatal injuries to the crane operator and any workers in the area

B. No violation has occurred because the 25foot setback applies only to groundlevel workers, not to elevated equipment like cranes

C. Only the boom swing violates the setback because the crane's base position is measured from the counterweight, not from the closest point of the crane structure

D. The violation is minor because the 5foot incursion into the setback zone is within the standard tolerance for crane operations near railroad rightsofway

41. A contractor's project is scheduled for 18 months. At the 12month mark, the project is only 55% complete against a planned 67% completion. The contractor has been submitting monthly schedule updates but has not implemented any corrective actions. The owner sends a formal letter expressing concern about the schedule slippage. What should the contractor do?

A. Respond to the owner stating that construction schedules are inherently inaccurate and the project will finish on time without any changes to the current approach

B. Ignore the letter because owner concern letters are informational only and carry no contractual significance

C. Prepare and submit a detailed recovery schedule showing how the contractor intends to regain the lost time — the recovery plan should identify the specific causes of the delay, propose corrective measures (additional crews, extended work hours, activity resequencing, or acceleration of critical path activities), and demonstrate that the revised schedule achieves the contractual completion date

D. File a counterclaim against the owner alleging that the schedule slippage is entirely the owner's fault because all construction delays are caused by owner decisions

42. A contractor purchases a piece of equipment for $320,000. The equipment is financed with a $256,000 loan (80% of the purchase price) and a $64,000 down payment from the contractor's working capital. What is the immediate impact on the contractor's balance sheet?

A. Total assets decrease by $64,000 because the down payment reduces cash without adding any new assets

B. Net worth increases by $256,000 because the loan adds an asset without reducing owner's equity

C. The balance sheet is unchanged because the equipment purchase and loan exactly offset each other

D. Total assets increase by $256,000 (the $320,000 equipment minus the $64,000 cash reduction), total liabilities increase by $256,000 (the loan), and net worth remains unchanged — the transaction shifts asset composition from cash to equipment while adding a corresponding liability

43. A contractor's project involves a deep excavation adjacent to an existing building. The existing building's foundation is 6 feet below grade. The excavation extends to 18 feet — 12 feet below the adjacent foundation. Underpinning is required to support the existing building during excavation. Who is responsible for the underpinning design?

A. The contractor is responsible for both the design and installation of the underpinning system because the contractor is performing the excavation that creates the need for underpinning

B. A qualified structural engineer must design the underpinning system because it involves protecting an existing building's foundation — the design requires engineering analysis of the existing building's loads, the soil conditions, the excavation depth, and the underpinning methodology to ensure the existing building is adequately supported during and after construction

C. The existing building's original architect is responsible because they designed the original foundation and are best positioned to determine how to support it during adjacent construction

D. OSHA designs and approves all underpinning systems through their regional engineering support office

44. A contractor's project involves a $1,500,000 commercial renovation. The contractor's CGL policy has a $1,000,000 peroccurrence limit and a $2,000,000 aggregate. The owner requires the contractor to carry a minimum of $5,000,000 in total liability coverage. What is the most costeffective way for the contractor to meet this requirement?

A. Purchase an umbrella policy with a $4,000,000 limit that sits above the existing $1,000,000 CGL policy — the umbrella provides $4,000,000 in additional coverage above the CGL's peroccurrence limit, creating $5,000,000 in total peroccurrence coverage at a fraction of the cost of increasing the primary CGL limit to $5,000,000

B. Increase the CGL policy limit from $1,000,000 to $5,000,000 per occurrence, which is the only way to meet the owner's requirement

C. Purchase four additional $1,000,000 CGL policies from different carriers to create $5,000,000 in total coverage through stacking

D. Reduce the project scope to below $1,000,000 so the existing CGL limit is sufficient

45. A contractor's project is governed by a contract that requires the contractor to maintain the OSHA 300 Log and post the OSHA 300A Summary annually. The contractor's safety director discovers that three recordable injuries from the current year were never entered on the OSHA 300 Log. It is now October. What corrective action must be taken?

A. No corrective action is needed because the OSHA 300 Log is only completed at yearend and injuries can be batchentered in December

B. The three injuries must be entered retroactively because the OSHA 300 Log should be completed within 7 days of the employer learning of a recordable injury — the safety director should also investigate why the injuries were not recorded and implement procedures to prevent future lapses

C. The three injuries must be recorded on the OSHA 300 Log immediately — OSHA requires recordable injuries to be logged within 7 calendar days of the employer learning of the injury, and the 3 missing entries should be added retroactively with the correct incident dates; the safety director should also implement procedures to prevent future recording failures

D. The injuries can only be recorded on the following year's OSHA 300 Log because retroactive entries on the current year's log are prohibited

46. A contractor is reviewing a potential project that involves both new construction and renovation of an existing structure. The renovation portion requires demolishing existing walls containing leadbased paint. The contractor's workers will be performing the demolition. Under OSHA's lead in construction standard (29 CFR 1926.62), what are the contractor's primary obligations?

A. Only to provide disposable dust masks to workers because leadbased paint in demolition generates dust levels below the OSHA action level

B. Only to notify the building owner that leadbased paint is present because the owner is responsible for all leadrelated worker protections

C. To comply with the full scope of the lead standard — including initial exposure assessment, blood lead level monitoring for workers exposed above the action level, provision of appropriate respiratory protection, worker training on lead hazards, hygiene facilities (handwashing, changing areas), and proper disposal of leadcontaminated debris

D. Only to ensure workers wear leather gloves because skin contact is the primary route of lead exposure during demolition activities

47. A contractor operating as a partnership converts to an LLC without making any tax election. The LLC has three members (the former partners). What changes and what stays the same regarding the federal tax treatment?

A. Everything changes — the LLC must file Form 1120 as a corporation and pay corporate income tax at the 21% rate

B. The tax treatment remains the same — a multimember LLC is taxed as a partnership by default, filing Form 1065 and issuing K1s to each member; the conversion changes the legal structure for liability purposes but does not change the federal tax classification, filing requirements, or selfemployment tax treatment

C. The selfemployment tax treatment changes because LLC members are classified as passive investors, eliminating SE tax on distributive shares

D. The filing requirement changes from Form 1065 to Form 1120S because all multimember LLCs are classified as Scorporations by default

48. A contractor's project is a commercial building renovation where the scope includes replacing the existing roof. The old roof contains builtup roofing materials with asphaltsaturated felts. During tearoff, the crew discovers an additional underlying layer of roofing material that was not visible during the preconstruction inspection and was not shown in any project documents. Removing this additional layer will cost $35,000 and add 4 days to

the schedule. Under a standard differing site conditions clause, is the contractor entitled to additional compensation?

A. No, because contractors are expected to anticipate hidden layers of roofing material during renovation projects and should have included removal costs in the bid

B. Yes, because the hidden roofing layer was not indicated in any contract documents and was not discoverable during a reasonable preconstruction inspection — this constitutes a Type I differing site condition (actual conditions differ from what the documents represented), entitling the contractor to additional compensation for the $35,000 removal cost and a 4day time extension

C. No, because roofing layers are not classified as subsurface conditions and therefore do not fall under the differing site conditions clause

D. Yes, but only for the 4day time extension — the $35,000 cost is considered a normal renovation risk that the contractor must absorb

49. A contractor's project involves installing a temporary electrical system for a construction site. The temporary power is supplied through a main panel with multiple circuits feeding temporary outlets, lighting, and equipment. OSHA requires groundfault circuit interrupter (GFCI) protection for temporary wiring on construction sites. What is the purpose of GFCI protection?

A. GFCI protection prevents overloaded circuits from tripping by automatically increasing the available amperage during highdemand periods

B. GFCI protection prevents electrical fires by monitoring the temperature of the wiring and disconnecting the circuit when the wire temperature exceeds safe limits

C. GFCI protection prevents circuit damage during voltage spikes by absorbing excess voltage and redirecting it to the ground system

D. GFCI protection prevents electrocution by monitoring the current flow between the hot and neutral conductors — when the device detects a difference of approximately 5 milliamps (indicating current is flowing through an unintended path, such as a worker's body), it trips the circuit in approximately 1/40th of a second, interrupting the current before a fatal shock can occur

50. A contractor is preparing a final project cost analysis after completing a $1,800,000 commercial building. The actual project costs were $1,530,000, producing a gross profit of

$270,000. The contractor's G&A expenses allocated to this project through the overhead rate were $153,000. What is the net profit and net profit margin on this project?

A. Net profit is $270,000 (15% margin) because G&A expenses are reported separately on the income statement and are not deducted from individual project profitability

B. Net profit is $153,000 (8.5% margin) calculated by subtracting only the overhead allocation without considering the direct cost performance

C. Net profit is $117,000 ($270,000 gross profit − $153,000 G&A allocation), and the net profit margin is 6.5% ($117,000 ÷ $1,800,000) — this represents the project's contribution to the company's bottom line after accounting for its proportional share of operating expenses

D. Net profit is $0 because the $153,000 G&A allocation consumes the entire gross profit on all construction projects as a standard industry practice

Practice Exam 14: Answer Key and Explanations

1. D — The defining characteristic of a fixed fee is that it remains constant regardless of actual costs. However, a major scope reduction may provide legitimate grounds for the owner to negotiate a fee adjustment through a formal change order, because the fee was originally calibrated to the effort required for a larger project. The key principle is that the fee does not automatically change — any adjustment requires mutual agreement through the contractual change process.

2. B — Friable white insulation in a 1972 commercial building has a high probability of containing asbestos. The crew has already disturbed the material, potentially releasing dangerous fibers. All work must stop immediately, workers must be evacuated, the area secured, and qualified asbestos testing arranged. Continuing work — even with dust masks — risks exposing workers to a confirmed carcinogen that causes mesothelioma and asbestosis.

3. A — The $200,000 in dividends is subject to double taxation. The corporatelevel taxes (federal 21% + Mississippi 5% on income over $10,000) have already been paid on the full $600,000 of corporate income. When the aftertax profits are distributed as dividends, the shareholders pay personal income tax again at their applicable qualified dividend rate. The same earnings are taxed at both the entity and individual levels.

4. C — Missing required prepour inspections means the building inspector could not verify rebar placement and formwork before the concrete was poured. Since the rebar is now concealed, the inspector may require alternative verification — groundpenetrating radar, core sampling, or other testing — at the contractor's expense. In worst cases, if compliance cannot be verified, the footings may need removal and replacement.

5. D — Projected total cost: $867,600 + $230,000 = $1,097,600. Original estimate was $1,020,000. The project is $77,600 over budget, reducing projected profit from $180,000 to $102,400 — a 43% profit erosion. At the 80% checkpoint, actual costs exceed the prorated

budget by $51,600, and the remaining 20% is estimated at $26,000 over budget. Immediate corrective action is required.

6. A — A commercial Building Construction license encompasses residential work within its broader scope. The commercial license authorizes the holder to perform residential construction because the commercial classification covers a wider range of construction activity. The contractor can legally perform the $45,000 residential addition under the existing commercial license without obtaining a separate residential classification.

7. C — Type B soil requires a maximum slope of 1:1 (45 degrees from horizontal). For every 1 foot of depth in the sloped section, the excavation wall must extend 1 foot horizontally. Type A allows ¾:1 (53 degrees — steeper because more stable), and Type C requires 1½:1 (34 degrees — gentler because least stable). The correct slope angle directly determines the trench width at the surface.

8. B — Total hours: 10+8+10+8+10 = 46. Regular pay: 40 hours × $38.00 = $1,520. Overtime: 6 hours × $57.00 (1.5 × $38.00) = $342. Total: $1,862. The FLSA calculates overtime on a workweek basis — all hours over 40 earn the halftime premium regardless of which day they were worked. There is no daily overtime trigger under federal law.

9. D — Path B at 62 days is the critical path. Path C originally had 4 days of float (62 − 58 = 4). The 3day delay increases Path C from 58 to 61 days — still 1 day shorter than the 62day critical path. The delay consumes 3 of 4 available float days without affecting the project completion date. If the delay had been 5 days, Path C at 63 would have exceeded Path B and extended the project by 1 day.

10. A — Net profit: $4,200,000 − $3,360,000 − $546,000 = $294,000. Net profit margin: $294,000 ÷ $4,200,000 = 7.0%. The 7.0% margin exceeds the surety's 5% minimum threshold. The contractor meets the bonding qualification requirement. Both the 20% gross margin (indicating healthy projectlevel profitability) and the 7% net margin (indicating adequate bottomline performance) are positive indicators for the surety.

11. C — OSHA's construction stairway standard specifies risers shall not exceed 9½ inches, and the variation between the tallest and shortest risers shall not exceed ¼ inch. The 9inch risers are within the 9½inch maximum. Assuming all risers are uniformly 9 inches (within the ¼inch variation tolerance), this stairway complies with OSHA requirements for temporary construction stairways.

12. B — Completion: $1,130,500 ÷ $1,615,000 = 70%. Earned revenue: 70% × $1,900,000 = $1,330,000. Billings: $1,200,000. Since earned revenue ($1,330,000) exceeds billings ($1,200,000) by $130,000, the project is underbilled. The $130,000 underbilling is classified as a current asset — the contractor has performed work that has not yet been invoiced and should consider accelerating billing.

13. D — Joint and several liability allows the creditor to pursue any individual partner for the full $450,000 judgment regardless of ownership percentage. The 50% partner with substantial personal assets is the most attractive target because they have the ability to pay. That partner may end up paying the full $450,000 and must then seek contribution from the other partners — who may lack the assets to reimburse their shares.

14. C — The geotechnical report disclosed the water table at 6 feet before the contract was signed. The contractor knew about this condition during bidding and should have included dewatering costs in the bid. Encountering the water table at exactly the depth predicted is not a differing site condition — it is a foreseeable condition that the contractor was responsible for pricing. A differing site condition requires actual conditions to differ from what the documents indicated.

15. A — The contractor failed to apply the sealer within the specified 28day window. The late application at 45 days allowed moisture to penetrate the concrete surface before sealing, contributing to the freezethaw damage. The contractor's failure to comply with the specification timeline is a workmanship deficiency — the sealer was backordered, but the contractor's obligation was to either obtain the material on time or notify the architect of the delay and seek direction.

16. D — OSHA can cite hazards that existed at the time of the complaint if evidence demonstrates violations occurred, even if conditions are compliant at the time of the inspection. Photographs, witness statements, daily reports, and the complaint itself can support a citation for past noncompliance. Correcting violations before an inspection may reduce penalties but does not necessarily prevent citations for documented prior violations.

17. B — A $45,000 gap between the contractor's estimate and the subcontractor's proposal warrants investigation, not automatic rejection. The subcontractor may have included scope items the contractor missed, used more realistic productivity rates, or priced materials at current market costs that the contractor's estimate does not reflect. The contractor's independent estimate may be too low — accepting an artificially low price can lead to subcontractor performance problems, quality issues, or midproject claims.

18. A — The contractor is paying $32.00 versus the required $35.50 basic rate — a $3.50/hour underpayment on every hour worked, violating DavisBacon's prevailing wage requirement. Additionally, the $16.00 fringe benefit requirement must be met through benefits, cash, or a combination. Two separate violations are present: insufficient basic wage rate and potentially insufficient fringe benefits. Both must be corrected and back wages paid.

19. C — Commingling personal and business funds is one of the primary factors courts examine when considering whether to pierce the LLC's limited liability veil. Using personal credit cards for business purchases, depositing business revenue into personal accounts, and failing to maintain separate books demonstrates that the member is not treating the LLC as a separate entity. A court may conclude the LLC is the member's alter ego and hold the member personally liable.

20. D — The specification prohibits mixing or placing mortar when the ambient temperature is below 40°F. At 38°F, the current temperature violates this requirement regardless of the forecast. The contractor must wait until the temperature rises above 40°F before beginning masonry work. Specifications state clear temperature thresholds — the current conditions, not forecasted conditions, must meet the requirement at the time of placement.

21. A — The project manager should compare delivery tickets (showing batch plant time, truck number, quantity, and mix design) against the contractor's daily reports documenting deliveries received, field verification of quantities at time of delivery, and concrete placement records.

This crossreference identifies discrepancies between what the supplier claims was delivered and what the contractor's contemporaneous records confirm was received on site.

22. B — Stored materials should not be approved for payment without proper documentation: supplier invoices verifying cost, delivery receipts confirming onsite delivery, photographs showing adequate storage conditions (weather protection, security), and insurance verification. Materials stacked in an open area with no cover or security are vulnerable to damage, theft, and deterioration. Approving payment for improperly stored materials exposes the contractor to financial risk.

23. C — No OSHA injury reporting is required because no workers were injured — the 8hour and 24hour reporting requirements apply to fatalities, hospitalizations, amputations, and eye losses. However, the structural collapse must be investigated to determine the cause and prevent recurrence. The remaining structure must be evaluated by a structural engineer before work resumes to ensure it is safe for workers to reenter.

24. A — A change that adds significant cost almost always adds time. The owner cannot add $340,000 in scope while refusing to extend the schedule — directing the contractor to absorb 6 weeks of acceleration at the contractor's expense constitutes a constructive change. If the contractor incurs overtime, additional equipment, and expedited material costs to compress the schedule, those acceleration costs become the owner's responsibility through a separate change order.

25. C — The contractor must immediately notify the architect and structural engineer with the test results. Nonconforming blocks at 15% below specification in loadbearing walls is a serious structural concern. The structural engineer must evaluate whether the asbuilt walls can safely support the design loads. If the evaluation determines the walls are inadequate, removal and replacement may be required. The contractor bears the cost, with recovery sought from the supplier.

26. A — Multiple parties may bear liability depending on the investigation findings. The elevator manufacturer faces product liability for the defective door sensor. The subcontractor faces installation liability if commissioning procedures should have detected the defect. The general contractor may face warranty obligations under the prime contract. Passing an inspection does not absolve any party of liability for latent defects that were not detectable at the time.

27. B — The concrete overspray damage to the subcontractor employee's vehicle is thirdparty property damage caused by the contractor's operations. This is a standard CGL Coverage A claim. The contractor's operations (concrete pumping) caused physical damage to property belonging to a third party. The superintendent's failure to take preventive action does not negate coverage — it may actually strengthen the claimant's case.

28. D — When the IRS reclassifies $40,000 of distributions as wages, both the employer's share (7.65%) and employee's share (7.65%) of FICA must be paid on the reclassified amount: $40,000 × 15.3% = $6,120 in total FICA taxes. Additionally, the IRS assesses penalties for failure to withhold the employee's share and failure to deposit the employer's share, plus interest on the unpaid amounts from the original due dates.

29. C — Multiple violations occurred: the contract's infection control requirements were violated by failing to install the containment barrier, OSHA standards for dust control were violated for both workers and building occupants, and the dust infiltration into an active patient care area may trigger Joint Commission scrutiny and state health department investigation. Hospital renovation requires strict infection control protocols because immunocompromised patients are extremely vulnerable to airborne contaminants.

30. A — Submitting a WIP schedule with knowingly outdated and favorable estimates is a misrepresentation to the surety. The surety relies on the WIP schedule to make bonding decisions — if the actual financial position is worse than reported, the surety may be extending bonding capacity that the contractor's true financials do not support. This can damage the bonding relationship, result in capacity reduction, and potentially constitute fraud.

31. D — Lost rental income is a consequential damage — an indirect financial loss flowing from the delay. The mutual waiver of consequential damages bars both the owner from recovering lost rental income and the contractor from recovering lost profits on other projects. The owner's remedy is limited to direct damages (cost to correct defective work) and any applicable liquidated damages. The waiver protects both parties from openended indirect financial exposure.

32. B — Material deviations from the approved fire protection design require the fire protection engineer's review and written approval. The contractor should submit both the original design and the subcontractor's proposed revision to the architect for evaluation. Even if the subcontractor's spacing may provide adequate coverage, the design professional must evaluate and approve any changes to lifesafety systems before installation proceeds.

33. A — Total overhead: $48,000 + $110,000 + $55,000 + $22,000 + $18,000 + $12,000 + $15,000 + $8,000 = $288,000. Overhead rate: $288,000 ÷ $1,800,000 = 16%. This rate must be applied to every project's direct costs during estimating to ensure each project carries its proportional share of the company's operating expenses. An inaccurate overhead rate leads to systematic underpricing or overpricing of every bid.

34. C — Conflicts between structural drawings and structural calculations must be resolved by the design team before the contractor orders materials. The contractor should submit an RFI identifying the specific discrepancy (W12×26 on drawings vs. W14×30 required by calculations) and wait for written direction. Ordering either beam without resolution risks either structural inadequacy or unnecessary cost and potential connection conflicts.

35. D — The contract specifies retainage release within 30 days of final completion. The architect has certified final completion, all conditions for release have been met, and 60 days have passed. The owner's unilateral decision to hold retainage as "warranty security" violates the contractual release terms — the warranty is a separate obligation that does not extend the owner's right to withhold earned retainage beyond the agreedupon release date.

36. B — The contractor has an independent obligation to comply with building codes regardless of who authorized the scope. Removing a firerated wall assembly without maintaining the fire rating violates the building code — the tenant's authorization does not override code requirements. The contractor should have identified the fire rating issue during planning and either maintained the rating during renovation or obtained approval for an alternative fire protection solution.

37. A — In a fixedprice contract, the bid price is the contract price. The contractor retains the unused $17,000 contingency as part of the total profit — along with any other savings from labor efficiency, favorable material pricing, or any other source. The owner agreed to pay $2,800,000 regardless of the contractor's internal cost allocation. The contingency was the contractor's risk reserve, and unused risk reserves belong to the contractor.

38. D — The specification required 95% compaction and the contractor performed no testing to verify compliance. The settlement is a foreseeable consequence of inadequate compaction — the pipe bedding could not support the loads above it because it was not properly compacted. The contractor must repair both the pipe bedding (reexcavate, properly compact, and reinstall) and the damaged parking lot surface, all at the contractor's expense.

39. B — The ADEA applies to employers with 20 or more employees (this employer has 22) and protects workers age 40 and older (the employee is 50). The employer's strongest defense is demonstrating that legitimate, nondiscriminatory factors — specific certifications, specialized skills, project needs, or documented performance differences — drove the RIF decision. Without documented, consistently applied selection criteria, the retention of younger, less experienced operators creates a strong inference of age discrimination.

40. A — Both the crane position (20 feet) and the boom swing radius (10 feet from the rail) violate the 25foot setback specification. The primary risk is catastrophic — a passing train striking the crane or boom could topple the crane, drop the load, and cause fatal injuries. Railroad setback requirements exist because trains cannot stop quickly, create powerful air displacement, and impact with devastating force. Schedule pressure never justifies violating lifesafety setback requirements.

41. C — The contractor must respond proactively with a detailed recovery schedule. The plan should identify specific delay causes (weather, material delays, productivity issues, ownercaused delays), propose concrete corrective measures (additional crews, overtime, resequencing, acceleration of critical activities), and demonstrate mathematically how the revised schedule achieves the contractual completion date. A recovery schedule demonstrates good faith and professional project management.

42. D — The equipment ($320,000) is a new asset. Cash decreases by $64,000 (down payment). Net asset increase: $320,000 − $64,000 = $256,000. The $256,000 loan is a new liability. Net worth remains unchanged because the asset increase ($256,000 net) equals the liability increase ($256,000 loan). The transaction shifts the composition of the balance sheet without changing the bottom line.

43. B — Underpinning an existing building's foundation requires structural engineering analysis of the existing building's loads, soil conditions, excavation geometry, and underpinning methodology. This is professional engineering work that must be designed by a qualified structural engineer — the contractor installs the underpinning per the engineer's design. Inadequately designed underpinning can cause catastrophic damage to the existing structure.

44. A — An umbrella policy with a $4,000,000 limit above the existing $1,000,000 CGL creates $5,000,000 in total peroccurrence coverage. Umbrella premiums are significantly lower per dollar of coverage than primary policy premiums because the umbrella responds only after

the underlying policy is exhausted. This is the most costeffective way to achieve high total coverage limits without the expense of increasing the primary CGL limit.

45. C — OSHA requires recordable injuries to be entered on the 300 Log within 7 calendar days of the employer learning of the injury. The three missing entries must be added immediately with correct incident dates. The safety director should investigate why the injuries were not recorded and implement procedures — such as automatic reporting workflows and supervisory accountability — to prevent future recording failures.

46. C — OSHA's lead in construction standard requires comprehensive protections: initial exposure assessment to determine airborne lead levels, blood lead level monitoring for exposed workers, appropriate respiratory protection based on exposure levels, worker training on lead hazards and safe work practices, hygiene facilities, and proper disposal of leadcontaminated debris. Demolishing leadpainted walls generates significant airborne lead dust that requires the full scope of the standard's protections.

47. B — A multimember LLC is taxed as a partnership by default. The conversion from general partnership to LLC changes the legal structure (adding limited liability) but does not change the federal tax treatment. The LLC files Form 1065, issues K1s to members, and each member pays selfemployment tax on their distributive share — identical to the partnership treatment. The tax filing, rates, and obligations remain the same.

48. B — The hidden roofing layer was not indicated in any contract documents and was not discoverable during a reasonable preconstruction inspection. This constitutes a Type I differing site condition — actual conditions differ from what the documents represented. The contractor is entitled to additional compensation for the $35,000 removal cost and a 4day time extension. Differing site conditions are not limited to subsurface soil conditions — they apply to any concealed condition that differs from the documents.

49. D — GFCI protection prevents electrocution by monitoring current flow between the hot and neutral conductors. When the device detects a difference of approximately 5 milliamps — indicating current is flowing through an unintended path such as a worker's body — it trips the circuit in approximately 1/40th of a second. This response time is fast enough to interrupt the current before a lethal shock can occur, making GFCI protection one of the most important electrical safety measures on construction sites.

50. C — Net profit: $270,000 gross profit − $153,000 G&A allocation = $117,000. Net profit margin: $117,000 ÷ $1,800,000 = 6.5%. This represents the project's true contribution to the company's bottom line after accounting for its proportional share of operating expenses. The 15% gross margin looks strong, but after the overhead allocation, the actual net contribution is 6.5% — demonstrating why tracking both gross and net margins is essential.