PRACTICE EXAM 16: 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 fixedprice contract for $1,950,000. The contractor discovers at the 75% completion point that the total project cost will exceed the contract price by approximately $85,000, resulting in a projected loss. Under GAAP's percentageofcompletion method, when must this anticipated loss be recognized?

A. At project completion when the actual loss is confirmed through final accounting reconciliation

B. At the 90% completion point because loss provisions before 90% are considered premature under construction accounting standards

C. Immediately upon determining the loss is probable — GAAP requires the full anticipated loss of $85,000 to be recognized in the current period as soon as the loss is projected, regardless of the completion percentage

D. Proportionally over the remaining 25% of the project, recognizing 25% of the loss each month until completion

2. A Mississippi contractor holds a Residential Builder license. A church approaches the contractor to build a new fellowship hall — a singlestory structure of 5,200 square feet valued at $280,000. The church is classified as a commercial occupancy. Can the contractor perform this work under the Residential Builder license?

A. Yes, because Mississippi licensing law permits Residential Builder license holders to perform commercial work on buildings that do not exceed 7,500 square feet and three stories — this singlestory, 5,200 square foot building falls within both limitations

B. No, because religious buildings are classified as institutional occupancies that require a separate institutional contractor license

C. Yes, but only if the project value is under $100,000, and this project at $280,000 exceeds the commercial crossover value threshold

D. No, because Residential Builder licenses are limited exclusively to singlefamily and multifamily residential construction and cannot be used for any commercial work

3. A contractor operating as a sole proprietor earns $360,000 in net business income. The contractor converts to an LLC with Scorporation tax election and sets a reasonable salary at $150,000. What is the approximate total selfemployment/payroll tax under each structure, and what is the annual savings?

A. Both structures produce identical tax results because the LLC/Scorp election does not change employment tax treatment

B. As a sole proprietor, SE tax on $360,000 is approximately $49,300 (15.3% on 92.35% × $360,000); with the Scorp election, payroll taxes on $150,000 salary are approximately $22,950 (15.3%), and the $210,000 in distributions avoids SE tax — annual savings of approximately $26,350

C. The Scorp election saves approximately $55,000 because it eliminates all employment taxes on both salary and distributions

D. The Scorp election saves approximately $5,000 because the IRS limits SE tax savings to 10% of the salary differential

4. A contractor's project involves a 13footdeep excavation in an urban area. The competent person classifies the soil as Type B. The contractor selects a combination protective system: an aluminum hydraulic shoring system in the lower 8 feet and sloping for the upper 5 feet. For the sloped upper section of a Type B classification, what is the maximum allowable slope angle?

A. ¾:1 (53 degrees), which applies only to Type A soil and would be too steep for Type B

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

C. Vertical (90 degrees), because the hydraulic shoring in the lower portion provides sufficient protection for vertical walls above

D. 1:1 (45 degrees from horizontal) — for every 1 foot of depth in the sloped upper section, the excavation wall extends 1 foot horizontally, creating a 5foot horizontal setback on each side for the 5foot sloped section

5. A contractor's project manager receives the monthly job cost report. The report shows the following for a commercial building project: budgeted direct costs $840,000, actual direct costs to date $546,000, percentage complete 60%, prorated budget $504,000 (60% × $840,000). What does the $42,000 variance ($546,000 actual versus $504,000 budget) indicate?

A. The project is $42,000 under budget because actual costs are less than the total budget of $840,000

B. The variance is favorable because $546,000 is less than 65% of the total budget

C. The project is $42,000 over budget at the 60% mark — actual costs are running 8.3% above the prorated budget, and if this overrun rate continues, total direct costs will reach approximately $910,000 versus the $840,000 budget, consuming $70,000 of the project's profit margin

D. The variance is insignificant because it represents less than 5% of the total contract price and falls within standard construction industry tolerances

6. A contractor's employee is injured when a section of temporary scaffolding collapses during a concrete pour on the third floor of a building under construction. The employee suffers a fractured pelvis and is transported to the hospital by ambulance. Under OSHA reporting requirements, what are the contractor's obligations?

A. The inpatient hospitalization must be reported to OSHA within 24 hours — this is one of three severe injury categories (along with amputations and eye losses) that trigger the 24hour reporting requirement; the scaffold collapse should also be investigated to determine root cause and prevent recurrence

B. The injury must be reported within 8 hours because any injury involving emergency ambulance transport is classified in the same category as a workplace fatality

C. The injury must be reported within 7 calendar days through the standard OSHA 300 Log recording process

D. No OSHA reporting is required because the employee was transported by ambulance rather than admitted as an inpatient

7. A contractor's project involves exterior concrete work during Mississippi's summer months. The specification requires concrete temperature at the time of placement to not exceed 90°F. The concrete arrives on site at 94°F. The superintendent must decide whether to accept or reject the load. What is the correct decision?

A. The concrete must be rejected because it exceeds the specification's 90°F maximum — wait, it's already placed? No, the superintendent must decide. The concrete must NOT be placed because 94°F exceeds the 90°F specification limit. Let me reexamine: the key says D for Q7.

7. A contractor's project involves exterior concrete work during Mississippi's summer months. The specification requires concrete temperature at the time of placement to not exceed 90°F. The concrete arrives on site at 94°F. The superintendent must decide whether to accept or reject the load. What should the superintendent do?

A. Accept the load because a 4°F variance is within the standard ±5°F tolerance for concrete temperature specifications

B. Accept the load but add ice to the mixer truck to reduce the temperature below 90°F before placement begins

C. Accept the load and place it immediately before the temperature rises further, relying on rapid placement to minimize heatrelated quality issues

D. Reject the load — the concrete exceeds the specification's 90°F maximum temperature limit, and placing nonconforming concrete risks reduced workability, accelerated set time, increased water demand, potential plastic shrinkage cracking, and lower ultimate compressive strength; a replacement load at the correct temperature should be ordered

8. A contractor operating as a Ccorporation has retained $450,000 in aftertax profits over four years. The contractor uses $200,000 of the retained earnings to purchase new equipment and holds the remaining $250,000 in the corporate bank account with no specific business purpose documented. Under the accumulated earnings tax provisions, what portion of the retained earnings is most likely at risk?

A. The full $450,000 is at risk because the accumulated earnings tax applies to all retained earnings regardless of how they are used

B. The $250,000 held without a documented business purpose is most likely at risk — the $200,000 used for equipment represents a legitimate business need that justifies retention, but the $250,000 without a documented purpose may be viewed by the IRS as retained to avoid shareholderlevel dividend taxation rather than for a bona fide business reason

C. No portion is at risk because the accumulated earnings tax has a $500,000 safe harbor for all Ccorporations

D. Only the $200,000 equipment purchase is at risk because the IRS penalizes capital expenditures made with retained earnings

9. A contractor signs a subcontract that includes a flowdown clause incorporating relevant terms of the prime contract. The prime contract contains a liquidated damages clause of $3,000 per day for late completion. The general contractor wants to pass this liability to the subcontractor through the flowdown. What should the subcontractor evaluate before accepting?

A. Only whether the daily rate of $3,000 exceeds the subcontractor's daily profit margin, because that is the sole factor determining whether the clause is acceptable

B. Only whether the prime contract's liquidated damages clause has been approved by MSBOC, because the Board must certify all liquidated damages provisions before they can be flowed down to subcontractors

C. Whether the liquidated damages amount is proportional to the subcontractor's scope, whether the subcontractor can control all factors affecting the milestone date, and whether delays caused by the general contractor, other trades, or force majeure are excluded from the subcontractor's exposure — the subcontractor should not accept openended liquidated damages liability for delays beyond their control

D. Only the total contract duration, because liquidated damages clauses are enforceable only on projects lasting more than 12 months

10. A contractor's project involves installing a new roof on a 2story commercial building. Workers are performing roof tearoff at 24 feet above grade. One worker is observed sitting on the roof edge with their legs dangling over the side, eating lunch. No fall protection is in place. What OSHA violation is present?

A. The worker is exposed to a fall hazard at 24 feet above grade without any fall protection — OSHA requires fall protection for construction workers at heights of 6 feet or more above a lower level, and the requirement applies at all times when the worker is exposed to the fall hazard, including during breaks; the employer has failed to ensure the worker uses fall protection while exposed to the unprotected edge

B. Only a housekeeping violation for eating in an unauthorized area of the construction site

C. No violation because fall protection requirements are suspended during meal breaks under OSHA's rest period exemption

D. Only a warning is required because the worker is voluntarily sitting at the edge rather than being directed to work there

11. A contractor's project has the following financial data: contract price $2,800,000, estimated total cost $2,380,000, actual costs incurred $1,666,000, billings to date $1,750,000. Using the percentageofcompletion method, what is the earned revenue and billing status?

A. Earned revenue is $1,750,000 and the project is properly billed because revenue equals billings under all revenue recognition methods

B. Earned revenue is $1,960,000 (70% × $2,800,000) and the project is underbilled by $210,000 because earned revenue exceeds billings — completion is 70% ($1,666,000 ÷ $2,380,000), so the contractor has performed $210,000 more work than has been invoiced

C. Earned revenue is $1,666,000 and the project is overbilled by $84,000 because billings exceed costs incurred

D. Earned revenue is $2,800,000 because the project is past 50% complete, triggering full contract recognition

12. A contractor's project involves demolishing an existing warehouse built in 1958 to make way for new construction. Before demolition begins, the contractor must conduct a predemolition hazardous materials survey. What materials are the primary targets of this survey in a building of this vintage?

A. Only radon gas because commercial warehouses built in the 1950s are in the peak radon exposure zone

B. Only leadbased paint because lead is the only regulated hazardous material found in 1950sera commercial construction

C. Only mercury from fluorescent lighting fixtures because mercury is the sole regulated substance in pre1960 commercial buildings

D. Asbestoscontaining materials (in insulation, roofing, flooring, pipe wrap, transite panels, and joint compounds) and leadbased paint — both were widely used in commercial construction before regulatory restrictions in the late 1970s and 1980s, and must be properly identified, abated, and removed before demolition to protect workers and the environment

13. A contractor operating as a general partnership with two equal partners decides to convert to an LLC. Neither partner wants to change the tax treatment. After conversion, how is the LLC taxed by default?

A. As a Ccorporation, requiring Form 1120 and subjecting income to corporate tax at the 21% rate

B. As an Scorporation, requiring Form 1120S and K1s because all LLCs with two or more members default to Scorporation treatment

C. As a partnership, filing Form 1065 and issuing K1s to each member — a multimember LLC defaults to partnership taxation, maintaining the same passthrough tax treatment the partners had before conversion while adding limited liability protection

D. As a disregarded entity, with each member reporting their share of income directly on Schedule C without any entitylevel filing

14. A contractor's employee works 52 hours in a workweek. The employee's regular rate is $36.00 per hour. The employer pays 52 hours at the straighttime rate ($36.00 × 52 = $1,872) and does not pay any overtime premium. The employer argues the salary compensates for all hours worked. Is this arrangement FLSAcompliant for a nonexempt hourly employee?

A. Yes, because the total weekly pay of $1,872 exceeds the FLSA's weekly minimum of $1,500 for construction workers

B. No, because the FLSA requires overtime at 1.5 times the regular rate for all hours over 40 — the correct pay is 40 hours at $36.00 ($1,440) plus 12 hours at $54.00 ($648) = $2,088; the employer underpaid by $216 and the "all hours compensated" argument does not satisfy the overtime requirement

C. Yes, because hourly employees who agree to a flat rate per hour for all hours worked are exempt from overtime

D. Yes, because the $36.00 rate already exceeds the overtime rate for minimum wage workers and therefore satisfies the FLSA

15. A contractor's project involves constructing a retaining wall. The structural specifications require #6 rebar at 8 inches on center horizontally and #5 rebar at 12 inches on center vertically. The contractor's crew installs #5 rebar in both directions at 12 inches on center to simplify installation. The concrete has not yet been poured. What should the project superintendent do upon discovering this deviation?

A. Accept the deviation because the difference between #5 and #6 rebar is negligible and will not affect the wall's structural performance

B. Allow the concrete pour to proceed and document the deviation in the asbuilt drawings for the structural engineer's postconstruction review

C. Pour the concrete immediately before the inspector arrives to avoid a potential rejection that would delay the schedule

D. Stop the work and require the crew to remove the incorrect #5 horizontal rebar and replace it with the specified #6 rebar at 8 inches on center before the concrete pour — the structural engineer designed the reinforcement for specific load requirements, and substituting smaller rebar at wider spacing significantly reduces the wall's structural capacity

16. A contractor's project is governed by a contract that includes a "time is of the essence" clause. The project is completed 3 days after the contractual completion date. The owner assesses liquidated damages for all 3 days. The contractor argues that a 3day delay is "immaterial" and should not trigger damages. Is the contractor's argument valid?

A. Yes, because delays of fewer than 5 calendar days are universally considered immaterial under Mississippi construction law

B. Yes, because the "time is of the essence" clause is a boilerplate provision that has no legal effect on the enforceability of liquidated damages

C. No, because a "time is of the essence" clause elevates timely performance to a material contract term — even a 1day delay may constitute a material breach, and the contractor's argument that 3 days is "immaterial" is directly contradicted by the clause that makes every day of timely performance material

D. No, but only because the delay exceeds 2 days — delays of 12 days are considered immaterial even with a "time is of the essence" clause

17. A contractor's CPAreviewed financial statement shows total assets of $1,050,000 and total liabilities of $780,000. The contractor wants to apply for a Mississippi commercial license in the Building Construction major classification. What is the contractor's net worth, and does it meet the MSBOC minimum requirement?

A. Net worth is $270,000 ($1,050,000 − $780,000), which exceeds the $50,000 minimum for major classifications — the contractor meets the MSBOC financial qualification with a $220,000 margin above the threshold

B. Net worth is $1,050,000 (total assets), which exceeds the $500,000 minimum for major classifications

C. Net worth is $780,000 (total liabilities), which falls below the $1,000,000 minimum for Building Construction licenses

D. Net worth cannot be determined from the information provided because MSBOC requires a breakdown of current versus longterm assets and liabilities

18. A contractor discovers that a material supplier has been delivering structural steel that does not meet the specified ASTM grade. The incorrect grade steel has already been installed in the building's firstfloor framing. Testing confirms the installed steel is a lower grade than specified. What must the contractor do?

A. Apply a protective coating to the lowergrade steel to increase its effective strength to match the specification requirements

B. Notify the architect and structural engineer immediately with the test results — the structural engineer must evaluate whether the lowergrade steel is adequate for the firstfloor design loads, and if the evaluation determines the steel is inadequate, the affected framing may need to be removed and replaced with the correct grade at the contractor's expense, with recovery pursued from the supplier

C. Accept the lowergrade steel and add supplemental bracing to compensate for the reduced strength without notifying the design team

D. Continue the steel erection on the upper floors using the correct grade and address the firstfloor issue during project closeout

19. A contractor's project involves a $2,400,000 commercial building with 10% retainage. The project reaches substantial completion after 12 months. Total accumulated retainage is $240,000. The contract specifies retainage release within 45 days of substantial completion, conditioned on punch list completion and closeout document delivery. The contractor completes all requirements within 30 days. When is the owner obligated to release the retainage?

A. Within 90 days of substantial completion because Mississippi law establishes a mandatory 90day retainage release period regardless of contract terms

B. Within 30 days of the contractor's completion of all requirements because the release obligation is triggered by the contractor's performance, not by the substantial completion date

C. The owner has no specific obligation because retainage release is discretionary and the owner can hold it indefinitely as longterm warranty security

D. Within 45 days of the architect's certification of substantial completion as specified in the contract — the contractor met all conditions for release within 30 days, so the owner's obligation is triggered by the contractual 45day timeline measured from substantial completion

20. A contractor's project involves work on a commercial building where the architect issues an RFI response that takes 28 days — significantly longer than the contractually specified 10day response time. The delayed response causes a 12day work stoppage in the affected area. The contractor continues work in other areas of the project. What documentation should the contractor prepare to protect their interests?

A. Only a verbal discussion at the next progress meeting mentioning the late RFI response

B. Only the architect's RFI response document, because the date on the response proves the delay without any additional analysis

C. A written delay notice to the owner documenting the RFI submission date, the contractual 10day response deadline, the actual 28day response time, the resulting 12day work stoppage in the affected area, the impact on the project schedule including any critical path effects, and any costs incurred during the delay — this contemporaneous documentation preserves the contractor's right to claim both a time extension and delayrelated costs

D. A complaint filed with the American Institute of Architects requesting disciplinary action against the architect for failing to meet the contractual response deadline

21. A contractor operating as a sole proprietor is considering whether to purchase a new $195,000 excavator using Section 179 expensing or standard 7year MACRS depreciation. The contractor's net business income before the equipment purchase deduction is $180,000. If the contractor chooses Section 179, what limitation applies?

A. Section 179 expensing cannot exceed the taxpayer's taxable business income — since the contractor's income is $180,000, the maximum Section 179 deduction is limited to $180,000, and the remaining $15,000 must be carried forward to future years or depreciated under standard MACRS

B. Section 179 is limited to 50% of the equipment cost regardless of income level, allowing a maximum deduction of $97,500

C. Section 179 cannot be used for construction equipment because it applies only to vehicles, computers, and office furniture

D. No limitation applies — the full $195,000 can be deducted regardless of the contractor's income level

22. A contractor's project involves steel erection on a commercial building. An ironworker is connecting structural beams at 28 feet above grade. Under OSHA's steel erection standard, what fall protection provisions apply to this connector during initial connection activities?

A. Full conventional fall protection (guardrails, nets, or PFAS) is required at all times because the 6foot general construction trigger applies to all steel erection workers

B. Between 15 and 30 feet, connectors may work without conventional fall protection during initial connection activities if they meet training and competency requirements — however, they must have a personal fall arrest system available and connected when not performing active connection work; this 28foot height falls within the connector exemption range

C. No fall protection of any kind is required for connectors at any height because the steel erection standard provides a complete exemption for all connection work

D. Only a safety monitor system is required because connectors between 20 and 35 feet are in the "monitored connection zone" under the steel erection standard

23. A contractor's project has a contract that specifies a document hierarchy: (1) change orders, (2) agreement, (3) supplementary conditions, (4) general conditions, (5) specifications, (6) drawings. The general conditions require a 14day notice period for claims. The supplementary conditions require a 7day notice period for claims. Which notice period governs?

A. The 14day period from the general conditions because the general conditions are the primary document and cannot be shortened by supplementary conditions

B. The 7day period from the supplementary conditions, but only if the claim exceeds $50,000

C. The 7day period from the supplementary conditions governs because supplementary conditions rank higher than general conditions in the stated order of precedence — supplementary conditions are projectspecific modifications that take precedence over the standard general conditions

D. Both periods apply simultaneously — the contractor must provide notice under both the 7day and 14day requirements

24. A contractor's project involves a renovation where the existing building's electrical panel must remain energized to serve occupied areas while new circuits are being added. The

electrician must work on the energized panel. Under OSHA's electrical safety standards, what is required before working on energized equipment?

A. Only a verbal warning to nearby workers that energized electrical work is in progress

B. Only the posting of a "Danger — High Voltage" sign on the panel door

C. Only the use of insulated gloves, because all other safety measures are optional for qualified electricians

D. A comprehensive set of protections — only qualified electricians may work on energized equipment, proper PPE (insulated gloves, arcflash rated clothing, face shields) must be worn, the work area must be clear of unnecessary personnel, an energized work permit may be required, and deenergization must be attempted as the first option with documentation of why working energized is necessary

25. A contractor's employee sustains an amputation of three fingers in a table saw accident at 11:00 AM on a Monday. Under OSHA reporting requirements, by what time must this injury be reported?

A. By 11:00 AM on Tuesday — amputations trigger OSHA's 24hour reporting requirement, and the clock begins when the employer learns of the amputation; failure to report within 24 hours is a citable violation

B. By 7:00 PM Monday — amputations must be reported within 8 hours under the same timeline as workplace fatalities

C. By 11:00 AM the following Monday — amputations require reporting within 7 calendar days through the standard OSHA 300 Log process

D. No OSHA reporting is required because the employee was operating the equipment voluntarily and the injury was selfinflicted through improper use

26. A contractor's project involves a commercial building where the plumbing subcontractor submits a payment application for $112,000. The application includes $78,000 for installed work and $34,000 for materials stored on site. The general contractor's superintendent visits the storage area and finds the materials are stacked outdoors on bare ground with no weather protection, no security fencing, and no insurance documentation. Should the general contractor approve the $34,000 stored materials billing?

A. Yes, because the subcontractor's payment application serves as a warranty that the materials are properly stored

B. No, until the materials are properly secured and protected — the superintendent should require the subcontractor to elevate the materials off the ground on pallets, provide weather protection (tarps or covered storage), secure the area against theft, provide supplier invoices and delivery receipts, and demonstrate insurance coverage before approving the $34,000 for payment

C. Yes, but the general contractor should withhold 50% of the stored materials value as an additional quality assurance retention

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

27. A contractor's project is governed by a GMP contract at $1,950,000 with a 50/50 savings sharing provision. Actual costs are $1,680,000 and the contractor's fee is $140,000. What does the owner pay?

A. $1,950,000 because the GMP is the fixed amount the owner pays regardless of actual costs or savings

B. $1,680,000 because the owner pays only actual costs, and the fee is absorbed within the GMP

C. $1,885,000 because the savings sharing reduces the GMP by the owner's share but the contractor's share is not added to actual costs

D. $1,885,000 — costs plus fee total $1,820,000 ($1,680,000 + $140,000), which is $130,000 below the GMP; the savings are split 50/50, giving the owner a $65,000 credit and the contractor a $65,000 bonus; the owner pays $1,820,000 + $65,000 = $1,885,000

28. A contractor discovers that their workers' compensation EMR has increased from 0.92 to 1.18 over the past two years due to several significant claims. The contractor's base premium is $110,000. What is the financial impact of this EMR increase, and what strategic consequence does it create?

A. The modified premium has decreased from $101,200 to $100,000 because higher EMR values produce premium discounts for companies that selfreport injuries

B. The modified premium has increased from $101,200 (0.92 × $110,000) to $129,800 (1.18 × $110,000) — an additional $28,600 per year; beyond the premium increase, the elevated EMR may disqualify the contractor from projects where owners require EMR thresholds of 1.0 or 1.10, reducing the contractor's competitive bidding opportunities

C. The EMR increase has no financial impact because EMR values between 0.80 and 1.20 are considered neutral

D. The premium impact is limited to a $5,000 annual surcharge because the EMR adjustment is capped at the lesser of 5% of the base premium or $5,000

29. A contractor's project involves a 10footdeep excavation. The competent person observes the following conditions: the soil is cohesive with no visible cracks, no water seepage, and no signs of previous disturbance. The thumb penetration test shows the thumb cannot penetrate the soil. The soil has a dry unit weight of approximately 110 pounds per cubic foot. Based on these observations, what is the most likely soil classification?

A. Type A — the soil exhibits all characteristics of the most stable classification: cohesive, no cracks, no water, undisturbed, and the thumb penetration test shows high resistance indicating strong cohesive strength; this classification permits the steepest sloping angle of ¾:1 (53 degrees)

B. Type B, because the 110 pounds per cubic foot density exceeds the Type A maximum of 100 pounds per cubic foot

C. Stable Rock, because the thumb cannot penetrate the soil, which indicates rockequivalent hardness

D. Type C, because all excavations deeper than 8 feet must be classified as the least stable type regardless of soil testing results

30. A contractor's project involves a concrete slabongrade for a commercial warehouse. The specification requires the concrete to achieve a minimum compressive strength of 3,500 PSI at 28 days. The 7day cylinder break test results show 2,800 PSI. Is this result concerning?

A. Yes, because the 7day result should be at least 90% of the specified 28day strength, and 2,800 PSI represents only 80% of the 3,500 PSI specification

B. Yes, because any 7day test result below 3,500 PSI indicates the concrete will not achieve the specification at 28 days

C. No — a 7day strength of 2,800 PSI represents approximately 80% of the 3,500 PSI specification, and typical concrete achieves 6575% of its 28day strength at 7 days; 2,800 PSI at 7 days projects to approximately 3,7304,310 PSI at 28 days, which would meet the 3,500 PSI specification

D. No, because 7day test results have no predictive value for 28day strength and should be ignored entirely

31. A contractor's project is a $3,400,000 commercial office building. During construction, the owner directs a redesign of the lobby that adds $195,000 in cost and 4 weeks to the schedule. The contractor submits a change order. The owner approves the $195,000 cost increase but refuses to extend the completion date, telling the contractor to "find a way to make up the time." The contractor estimates that accelerating the schedule will cost an additional $48,000 in overtime, additional equipment, and expedited materials. Who bears the $48,000 acceleration cost?

A. The contractor bears the acceleration cost because contractors are expected to maintain the original completion date regardless of ownerdirected scope changes

B. The acceleration cost is shared equally between the owner and contractor because both parties benefit from maintaining the original schedule

C. The contractor can refuse to accelerate and must file a formal objection with MSBOC to resolve the schedule dispute

D. The owner bears the $48,000 acceleration cost — when the owner adds scope and cost but refuses to extend the schedule, the directive to accelerate is a constructive change that creates additional costs for overtime, extra equipment, and expedited materials, all of which are the owner's financial responsibility

32. A contractor's project involves a renovation of an existing commercial building. The building was constructed in 1975. The renovation requires removing a section of acoustic ceiling tile. Before removal, the contractor should assume what about the ceiling tiles in a building of this vintage?

A. The tiles are safe to remove with standard methods because acoustic ceiling tiles manufactured after 1970 never contain asbestos

B. The tiles should be presumed to potentially contain asbestos until testing proves otherwise — acoustic ceiling tiles manufactured before the 1980s commonly contained asbestos, and OSHA's asbestos standard requires the contractor to either test the material before disturbance or treat it as asbestoscontaining and follow all regulated work practices

C. The tiles are safe because ceiling tiles are classified as nonfriable materials that do not release asbestos fibers during removal

D. Only tiles larger than 12 inches square need to be tested because smaller tiles from this era were manufactured with asbestosfree compounds

33. A contractor's project manager discovers that a subcontractor has been billing for 10 workers on site daily, but the superintendent's daily headcount records show an average of only 7 workers. The discrepancy has persisted for 6 weeks and amounts to approximately $54,000 in potential overbilling. What should the project manager do?

A. Investigate the discrepancy immediately by comparing the subcontractor's daily time sheets and payroll records against the superintendent's headcount documentation, delivery tickets, and any gate access records — if the investigation confirms overbilling, confront the subcontractor with the documented evidence, demand restitution for the overpaid amount, adjust the current payment application, and evaluate whether the overbilling was intentional (which may warrant termination of the subcontract) or the result of administrative errors

B. Ignore the discrepancy because a $54,000 variance is within normal tolerance for subcontractor labor billing on commercial projects

C. Deduct $54,000 from the subcontractor's next payment without investigation or notification because the headcount records are sufficient to justify the adjustment

D. Report the subcontractor to MSBOC for fraudulent billing, which is a licensing violation that triggers automatic license revocation

34. A contractor's project involves installing a commercial elevator shaft. Workers must enter the elevator pit — a confined space 12 feet deep with limited entry/exit. Before any worker enters the pit, what confined space procedures must be in place?

A. Only a ladder for entry/exit and a flashlight because elevator pits are classified as standard work areas under OSHA

B. Only atmospheric testing for oxygen levels because elevator pits do not present risks from toxic gases or flammable atmospheres

C. A complete confined space entry program — atmospheric testing for oxygen, toxic gases, and flammable atmospheres; continuous ventilation; a trained attendant stationed outside the pit; established rescue procedures; a written confined space entry permit; and worker training on confined space hazards and procedures

D. Only a safety observer stationed at the top of the pit who can call for help if a worker becomes incapacitated

35. A contractor's project has the following scenario: the project is 80% complete and the contractor discovers that 3 of 12 concrete test cylinders broken at 28 days show compressive strength below the specified 4,000 PSI minimum. The failing cylinders tested at 3,650 PSI, 3,780 PSI, and 3,820 PSI. The other 9 cylinders exceeded 4,000 PSI. What should the contractor do?

A. Notify the architect and structural engineer immediately with all test results — the failing cylinders represent specific concrete placements that must be identified and evaluated by the structural engineer to determine whether the belowspecification concrete is adequate for the design loads in those locations; additional testing (core samples from the inplace concrete) may be required to verify the actual strength of the concrete as built

B. Average all 12 cylinder results to determine if the overall average exceeds 4,000 PSI, because the averaging method is the standard acceptance criterion for concrete strength

C. Discard the 3 failing results as statistical outliers and report only the 9 passing results to the architect

D. Accept all concrete because the failing results are within 10% of the specified strength, which is the standard tolerance for concrete compressive testing

36. A contractor's annual financial data shows: revenue $4,600,000, cost of construction $3,680,000, G&A expenses $598,000. The contractor is meeting with their bonding company to discuss capacity. What are the gross and net profit margins the surety will evaluate?

A. Gross margin is 25% and net margin is 12%, both calculated by dividing profit figures by cost of construction

B. Gross margin is 7% and net margin is 20%, with the figures representing the inverse of their actual relationship

C. Gross margin is 15% and net margin is 8%, calculated using the industryadjusted revenue method

D. Gross profit is $920,000 (20% margin) and net profit is $322,000 (7% margin) — the surety evaluates gross margin to assess projectlevel profitability and net margin to assess overall business health after G&A expenses are covered

37. A contractor's project involves installing temporary guardrails around floor openings on the 5th floor of a building under construction. A worker removes a guardrail section to move a large piece of equipment through the opening, and then does not reinstall the guardrail. Thirty minutes later, another worker falls through the unprotected opening and suffers serious injuries. What OSHA violations are present?

A. The failure to immediately reinstall the guardrail after moving the equipment is a fall protection violation, and the employer's failure to ensure guardrails are maintained around floor openings at all times workers are exposed to the hazard demonstrates a systemic safety management failure — if the employer's safety program does not address temporary removal and immediate reinstallation of fall protection, the citation may be elevated in severity

B. Only a guardrail violation against the individual worker who removed the rail and failed to replace it, with no liability for the employer

C. Only a housekeeping violation for failing to maintain an orderly work environment around the floor opening

D. No violation because the guardrail was initially installed correctly and the subsequent removal was an employee action beyond the employer's control

38. A contractor's project involves a $1,200,000 commercial renovation. The contractor discovers that the architect's drawings contain a design error — a structural beam is undersized for the loads it must carry. The contractor identifies the error before installation and submits an RFI. The architect issues a revised drawing specifying a larger beam that costs $22,000 more. Who bears the cost of the beam upgrade?

A. The contractor bears the cost because the contractor should have identified the design error during the bidding phase and included the cost of a larger beam in the original bid

B. The structural engineer bears the cost because the undersized beam represents a professional design error that the engineer is liable for under their professional liability insurance

C. The owner bears the cost through a change order — the architect's design error required a design revision that changed the specified beam size, increasing the contractor's cost; the owner may separately pursue recovery from the architect's professional liability insurance, but the contractor's compensation flows through the owner via the change order process

D. The cost is shared equally among the owner, architect, and contractor because design errors are a shared risk in construction

39. A contractor operating as a partnership with two equal partners earns $520,000 in net ordinary business income. Neither partner receives guaranteed payments. What is each partner's total selfemployment tax obligation?

A. No selfemployment tax is owed because partnership income is classified as passive investment income exempt from SE tax

B. Each partner's SE tax obligation is calculated on their $260,000 distributive share — the SE tax base is $260,000 × 92.35% = $240,110, and the SE tax at 15.3% (12.4% Social Security up to the wage base plus 2.9% Medicare on all earnings) produces approximately $33,600$36,700 per partner depending on the current Social Security wage base

C. Each partner owes exactly $39,780 because selfemployment tax is calculated at a flat 15.3% on the full distributive share without the 92.35% adjustment

D. Only the partner who performs the majority of the manual labor owes SE tax, while the managing partner's income is classified as management fees exempt from SE tax

40. A contractor's project involves constructing a large commercial building. The steel erection plan calls for multistory column sections that will be temporarily guyed until the permanent bracing and connections are completed. A windstorm topples two unsecured column sections that were erected but not yet permanently braced or guyed. No workers are injured. What failure does this incident illustrate?

A. A failure in the steel erection sequence and temporary stability plan — OSHA's steel erection standard requires that columns be adequately braced, guyed, or otherwise stabilized during erection to prevent collapse from wind, vibration, or other forces; erecting columns without adequate temporary support violates the stability requirements and creates a collapse hazard that could be fatal if workers were present

B. A design failure by the structural engineer because the permanent connections should be designed to be installed simultaneously with column erection

C. A fabrication error by the steel manufacturer because the columns should be selfsupporting without temporary bracing

D. A weather forecasting failure because the windstorm should have been anticipated and construction suspended in advance

41. A contractor's project involves installing a fire suppression system in a new commercial building. The fire suppression subcontractor submits shop drawings showing a different sprinkler head layout than the fire protection engineer's design. The subcontractor claims their revised layout provides better coverage based on the manufacturer's spacing guidelines. What should the general contractor do?

A. Accept the subcontractor's revised layout because manufacturer guidelines take precedence over the engineer's design

B. Install the subcontractor's layout and document the deviation for the architect's review at project closeout

C. Submit both the engineer's original design and the subcontractor's proposed revision to the architect for the fire protection engineer's review and approval — deviations from the approved lifesafety system design require the design professional's evaluation and written authorization before installation, regardless of the subcontractor's assessment

D. Reject the subcontractor's proposal outright without any review because all deviations from the original drawings are automatically noncompliant

42. A contractor's project is nearing completion. The architect conducts the substantial completion inspection and identifies a punch list of 35 items. The contractor completes 32 items within two weeks. Three items remain: a door that sticks slightly, a small area of paint touchup, and an adjustment to an HVAC thermostat. The owner refuses to certify substantial completion until all 35 items are resolved. Is the owner's position justified?

A. Yes, because substantial completion requires every single item on the punch list to be resolved with zero deficiencies remaining

B. The owner's position may not be justified — substantial completion means the project is sufficiently complete that the owner can occupy and use the building for its intended purpose; three minor remaining items (a sticking door, paint touchup, and thermostat adjustment) are typical punch list items that do not prevent occupancy and should not delay the certificate of substantial completion

C. Yes, because any remaining punch list items automatically disqualify the project from substantial completion certification

D. The owner's position depends on whether the total value of the remaining items exceeds 1% of the contract price, which is the statutory threshold for substantial completion disputes

43. A contractor discovers that their company's overhead rate has been understated for the entire year. The actual annual overhead is $420,000, but the rate used in all bids was based on projected overhead of $360,000. Annual direct cost volume is $2,400,000. What is the total unrecovered overhead for the year?

A. $60,000, calculated by subtracting the projected overhead from actual overhead, because the rate difference applies uniformly to all projects

B. The unrecovered overhead is $42,000, calculated as 1.75% of direct cost volume, which understates the actual impact

C. The unrecovered overhead is zero because the yearend accounting process automatically adjusts all project costs to reflect actual overhead

D. The actual rate is 17.5% ($420,000 ÷ $2,400,000) versus the applied rate of 15% ($360,000 ÷ $2,400,000) — the 2.5% difference multiplied by $2,400,000 in direct cost volume produces $60,000 in unrecovered overhead that directly reduces the company's annual profit

44. A contractor's project involves installing underground water lines. The contractor calls Mississippi 811 to have existing utilities marked before excavation. The utility company marks a gas line with yellow paint. During excavation, the contractor's backhoe operator strikes and ruptures an unmarked water line that was not included in the 811 locate response. Who is liable for the damage to the unmarked water line?

A. The utility owner who failed to mark the water line is primarily liable — the contractor fulfilled their legal obligation by calling 811 and waiting for the locate response; the utility company's failure to mark their facility in response to a valid locate request shifts the liability for the resulting damage to the utility owner

B. The contractor is solely liable because the contractor should have handdug the entire excavation to discover all underground utilities regardless of the 811 response

C. Both parties are equally liable because Mississippi law mandates 50/50 cost sharing for all underground utility strikes regardless of fault

D. The 811 call center is liable because they failed to notify the water utility of the locate request

45. A contractor's project has a fixedprice contract. The contractor includes a 5% contingency ($55,000) in the bid price for a $1,100,000 project. During construction, the contractor uses $38,000 of the contingency for unforeseen minor conditions and retains $17,000 unused at project completion. On a fixedprice contract, what happens to the unused $17,000?

A. The contractor must return the $17,000 to the owner because unused contingency belongs to the project owner on all contract types

B. The $17,000 is placed in a warranty escrow account until the warranty period expires

C. The contractor retains the $17,000 as part of the total profit — on a fixedprice contract, the contract price is the contract price, and the owner agreed to pay $1,100,000 regardless of how the contractor allocates costs internally; unused contingency, like any other cost savings, belongs to the contractor

D. The $17,000 must be disclosed to the owner in the final cost report because Mississippi law requires contractors to report unused contingency on all public and private projects

46. A contractor's project involves a commercial renovation in an occupied building. The contractor's crew is performing concrete cutting with a gaspowered saw on the 3rd floor. Workers on the 2nd floor begin experiencing headaches and dizziness. What is the most likely hazard, and what must the contractor do?

A. The most likely hazard is noise exposure from the concrete saw, and the contractor must provide hearing protection to all workers on the 2nd and 3rd floors

B. The most likely hazard is silica dust from the concrete cutting, and the contractor must install a HEPA filtration system on the 2nd floor

C. The most likely hazard is vibration from the saw transferring through the building structure, and the contractor must install vibration dampening pads under the saw

D. The most likely hazard is carbon monoxide (CO) accumulation from the gaspowered saw — CO is a colorless, odorless gas that migrates to lower floors through building penetrations; the contractor must immediately stop the gaspowered cutting, ventilate the affected areas, evacuate symptomatic workers for medical evaluation, and switch to electricpowered cutting equipment or implement continuous CO monitoring with adequate mechanical ventilation

47. A contractor's project is governed by a contract that includes a mutual waiver of consequential damages. The project is completed 30 days late. The owner claims $120,000 in lost rental income from tenants who could not occupy the building on time. The contract also includes a liquidated damages clause of $1,500 per day. What can the owner recover?

A. Both the $120,000 in lost rental income and the $45,000 in liquidated damages because the waiver of consequential damages does not apply to delayrelated losses

B. $45,000 in liquidated damages only (30 days × $1,500/day) — the mutual waiver of consequential damages bars the $120,000 lost rental income claim because lost rental income is a consequential damage; the liquidated damages clause provides the exclusive remedy for delay, replacing actual damages with the preagreed daily amount

C. $120,000 in lost rental income only because liquidated damages clauses are voided when a waiver of consequential damages is present in the same contract

D. $165,000 total ($120,000 + $45,000) because mutual waivers only apply to the contractor's consequential damages, not the owner's

48. A contractor is reviewing a construction contract that contains both a "no damages for delay" clause and a force majeure clause. During construction, the owner fails to provide timely access to a critical portion of the site for 6 weeks, causing the contractor to incur $85,000 in idle equipment, extended supervision, and remobilization costs. The contractor submits a claim for the delay costs. The owner invokes the "no damages for delay" clause. Does the contractor have grounds to overcome this clause?

A. Yes, because courts have recognized exceptions to "no damages for delay" clauses for delays caused by the owner's active interference — the owner's failure to provide site access for 6 weeks may constitute active interference or a delay so unreasonable it was not contemplated by the parties when the contract was signed, which are recognized exceptions that may allow the contractor to recover the $85,000 in delay costs despite the clause

B. No, because "no damages for delay" clauses are absolute bars to all delay damage claims regardless of the cause, severity, or duration of the delay

C. Yes, but only because the delay exceeded 4 weeks — delays of 4 weeks or less are covered by the clause, but longer delays automatically void it

D. No, because force majeure clauses and "no damages for delay" clauses cannot coexist in the same contract, making both unenforceable

49. A contractor's project involves constructing a new commercial building on a site where Mississippi 811 has marked existing underground utilities. The contractor's crew begins excavation and approaches within 24 inches of a marked gas line. Under Mississippi's excavation requirements, what excavation method must the contractor use within the tolerance zone around the marked utility?

A. Standard mechanical excavation is permitted within the tolerance zone as long as the operator proceeds slowly and carefully

B. Only pneumatic (air lance) excavation is permitted within the tolerance zone because it is the only method that cannot damage underground utilities

C. Handdigging or vacuum excavation — nonmechanical methods that allow the contractor to carefully expose the utility without risk of mechanical damage from backhoe buckets, trencher teeth, or other powered equipment that can easily sever, puncture, or displace buried lines

D. No excavation of any kind is permitted within the tolerance zone — the contractor must redesign the project to avoid all marked utility locations entirely

50. A contractor has been preparing for the Mississippi Law and Business Management exam. After months of study, practice exams, and reference guide preparation, the contractor scores a 78% on their final practice exam. The exam is in 3 days. What is the most productive use of the remaining time?

A. Start studying an entirely different exam preparation book to gain a "fresh perspective" on the material

B. Review only the questions missed on the final practice exam, identify the specific domains and topics where errors occurred, strengthen those weak areas through targeted study and reference guide lookup practice, take one final short practice quiz to confirm improvement, verify all examday logistics, and get adequate rest — at this stage, targeted refinement of weak areas produces more improvement than broad restudying

C. Take 5 more fulllength practice exams in the next 3 days to build maximum exam endurance

D. Memorize the answer keys from previous practice exams because the actual exam uses similar question patterns

Practice Exam 16: Answer Key and Explanations

1. C — GAAP requires immediate recognition of the full anticipated loss as soon as a loss is projected — not proportionally and not deferred until completion. The entire $85,000 must be recognized in the current period regardless of the 75% completion percentage. This is a fundamental accounting principle: anticipated profits are recognized proportionally, but anticipated losses are recognized in full immediately.

2. A — Mississippi licensing law permits Residential Builder license holders to perform commercial work on buildings that do not exceed 7,500 square feet and three stories in height. This singlestory, 5,200 square foot church fellowship hall falls within both limitations. The crossover provision allows the contractor to perform this commercial work under the existing residential license.

3. B — As a sole proprietor, SE tax on $360,000: approximately $49,300 (15.3% on 92.35% × $360,000). With Scorp election and $150,000 salary, payroll taxes are approximately $22,950 (15.3% on $150,000). The $210,000 in distributions avoids SE tax. Annual savings: approximately $49,300 − $22,950 = $26,350. The savings come entirely from removing the $210,000 distribution from the SE tax base.

4. D — Type B soil requires a maximum slope of 1:1 (45 degrees from horizontal). For the 5foot sloped upper section, each foot of depth requires 1 foot of horizontal setback: 5 feet × 1 = 5 feet per side. Type A allows ¾:1 (53 degrees, steeper), and Type C requires 1½:1 (34 degrees, gentler). The correct slope angle is determined by the soil classification.

5. C — Actual costs of $546,000 at 60% completion exceed the prorated budget of $504,000 by $42,000 — an 8.3% overrun. If this rate continues, total costs will reach approximately $910,000 versus the $840,000 budget. The $42,000 midproject variance is a warning sign

requiring immediate investigation to identify the cost drivers and implement corrective action before additional profit is consumed.

6. A — Inpatient hospitalization is one of three severe injury categories triggering OSHA's 24hour reporting requirement (along with amputations and eye losses). The 24hour clock begins when the employer learns of the hospitalization. The scaffold collapse should also be investigated to determine root cause — formwork design, load calculations, or installation errors — and the findings used to prevent recurrence.

7. D — The concrete exceeds the specification's 90°F maximum temperature. Placing overheated concrete risks accelerated set time, reduced workability, increased water demand, plastic shrinkage cracking, and potentially lower ultimate compressive strength. The superintendent must reject the load and order a replacement at the correct temperature. Specification temperature limits are hard requirements, not guidelines.

8. B — The $200,000 used for equipment represents a legitimate business need justifying retention. The $250,000 held without a documented business purpose is most vulnerable to the accumulated earnings tax. The IRS examines whether retained earnings serve specific, legitimate business needs or are accumulated to help shareholders avoid dividend taxation. Documenting the business purpose for all retained earnings is essential protection.

9. C — The subcontractor must evaluate three critical factors: whether the $3,000 daily amount is proportional to the subcontractor's scope (not the full project), whether the subcontractor controls all factors affecting the milestone, and whether ownercaused or thirdparty delays are excluded from the subcontractor's exposure. Accepting unlimited liquidated damages liability for delays beyond the subcontractor's control is an unacceptable risk.

10. A — Fall protection is required at all times when workers are exposed to fall hazards at 6 feet or more — including during breaks. The worker sitting on the roof edge at 24 feet with legs dangling is exposed to a fall hazard without any protection. OSHA's requirement is triggered by exposure to the hazard, not by whether the worker is actively performing work tasks.

11. B — Completion: $1,666,000 ÷ $2,380,000 = 70%. Earned revenue: 70% × $2,800,000 = $1,960,000. Billings: $1,750,000. Since earned revenue ($1,960,000) exceeds billings ($1,750,000) by $210,000, the project is underbilled. The $210,000 represents work performed but not yet invoiced — the contractor should accelerate billing to improve cash flow.

12. D — Buildings constructed before 1980 commonly contain asbestos (in insulation, roofing, flooring, pipe wrap, transite panels, joint compounds) and leadbased paint. Both materials were widely used before regulatory restrictions in the late 1970s1980s. A predemolition hazardous materials survey identifies these regulated substances so they can be properly abated before demolition, protecting workers and the environment.

13. C — A multimember LLC defaults to partnership taxation without any election needed. The LLC files Form 1065, issues K1s to each member, and each member reports their share on their personal return. The conversion from general partnership to LLC changes the legal structure (adding limited liability) but maintains identical federal tax treatment — passthrough taxation with selfemployment tax on distributive shares.

14. B — Total hours: 52. Regular: 40 × $36.00 = $1,440. Overtime: 12 × $54.00 (1.5 × $36.00) = $648. Correct total: $2,088. The employer paid only $1,872, underpaying by $216. The FLSA requires the overtime premium regardless of how the employer characterizes the arrangement. Nonexempt hourly employees cannot be paid straight time for all hours.

15. D — The structural engineer specified #6 rebar at 8 inches on center for specific load requirements. Substituting #5 rebar at 12 inches on center significantly reduces the wall's reinforcement crosssectional area and changes the spacing, potentially making the wall structurally inadequate. Since the concrete has not been poured, the incorrect rebar can and must be removed and replaced with the specified reinforcement before the pour.

16. C — "Time is of the essence" makes every day of timely performance a material contract term. The contractor's argument that 3 days is "immaterial" directly contradicts the clause. With this provision, even a single day of delay may constitute a material breach. The clause eliminates the defense that a minor delay should not trigger damages — the parties agreed that time is critical.

17. A — Net worth: $1,050,000 − $780,000 = $270,000. The $50,000 minimum for major classifications is easily met with a $220,000 margin above the threshold. This substantial margin provides financial cushion for the contractor and demonstrates strong financial qualification for MSBOC licensing. Net worth is calculated as total assets minus total liabilities.

18. B — Nonconforming structural steel already installed in the building's framing is a serious structural concern. The architect and structural engineer must be notified immediately with test results identifying the incorrect grade. The structural engineer evaluates whether the lowergrade steel can safely support the firstfloor design loads. If inadequate, removal and replacement at the contractor's expense is required, with recovery pursued from the supplier.

19. D — The contract specifies retainage release within 45 days of substantial completion. The contractor completed all release conditions (punch list and closeout documents) within 30 days — well before the deadline. The owner's obligation to release the $240,000 is governed by the 45day contractual timeline measured from the architect's substantial completion certification, not from when the contractor completed the conditions.

20. C — Comprehensive written documentation preserves the contractor's rights to both a time extension and delay cost recovery. The notice must document the RFI timeline (submission date, 10day contractual deadline, 28day actual response), the 12day work stoppage, the schedule impact, and any costs incurred. Without contemporaneous written notice, the contractor may waive these rights even when the delay was clearly the architect's responsibility.

21. A — Section 179 expensing cannot exceed the taxpayer's taxable business income for the year. With $180,000 in income, the maximum Section 179 deduction is $180,000. The remaining $15,000 ($195,000 − $180,000) must be carried forward to future tax years or depreciated under standard 7year MACRS. This income limitation prevents Section 179 from creating a net business loss.

22. B — OSHA's steel erection standard provides a limited exemption for connectors between 15 and 30 feet during initial connection activities. At 28 feet, this worker falls within the exemption range. The connector must meet specific training and competency requirements,

must have a PFAS available, and must be connected when not performing active connection work. Above 30 feet, conventional fall protection is mandatory.

23. C — Supplementary conditions rank higher than general conditions in the stated order of precedence. The 7day notice period in the supplementary conditions governs over the 14day period in the general conditions. Supplementary conditions are projectspecific modifications that take precedence over standard general conditions whenever they conflict. Missing the 7day deadline could waive the contractor's claim rights.

24. D — Working on energized equipment requires comprehensive protections: only qualified electricians may perform the work, proper PPE (insulated gloves rated for the voltage, arcflash rated clothing, face shield) must be worn, unnecessary personnel must be cleared from the area, and deenergization must be the first option attempted. If energized work is necessary, an energized work permit documenting the justification may be required.

25. A — Amputations trigger OSHA's 24hour reporting requirement. The 24hour clock begins when the employer learns of the amputation — in this case, 11:00 AM Monday, making the deadline 11:00 AM Tuesday. The three severe injury categories requiring 24hour reporting are inpatient hospitalization, amputation, and loss of an eye. Fatalities require 8hour reporting.

26. B — Stored materials should not be approved for payment without proper documentation and adequate storage conditions. Materials on bare ground without weather protection, security, or insurance verification are at risk of damage, theft, and deterioration. The general contractor should require pallets, weather protection, security, invoices, delivery receipts, and insurance documentation before approving any payment for stored materials.

27. D — Costs plus fee: $1,680,000 + $140,000 = $1,820,000. Savings below GMP: $1,950,000 − $1,820,000 = $130,000. Split 50/50: owner receives $65,000 credit, contractor receives $65,000 bonus. Owner pays: $1,820,000 + $65,000 = $1,885,000. Equivalently: $1,950,000 − $65,000 = $1,885,000. The savings sharing incentivizes the contractor to control costs.

28. B — Previous modified premium: $110,000 × 0.92 = $101,200. Current modified premium: $110,000 × 1.18 = $129,800. Annual increase: $28,600. Beyond the premium cost, the 1.18 EMR may disqualify the contractor from projects requiring EMR thresholds of 1.0 or 1.10 — reducing the pool of available work. The EMR's impact extends beyond premium costs to competitive positioning.

29. A — All indicators point to Type A: cohesive soil with no cracks, no water seepage, no prior disturbance, and the thumb cannot penetrate (indicating high unconfined compressive strength). Type A is the most stable classification, permitting the steepest sloping angle of ¾:1 (53 degrees). The absence of any destabilizing factors — water, cracks, disturbance, vibration — supports the Type A classification.

30. C — Typical concrete achieves 6575% of its 28day strength at 7 days. A 7day result of 2,800 PSI represents 80% of the 3,500 PSI specification — actually higher than the typical 6575% ratio. Projecting forward: 2,800 ÷ 0.75 ≈ 3,730 PSI to 2,800 ÷ 0.65 ≈ 4,310 PSI at 28 days. Both projections exceed the 3,500 PSI specification. The 7day results are not concerning.

31. D — When the owner adds $195,000 in scope but refuses to extend the completion date, the directive to accelerate constitutes a constructive change. The $48,000 in overtime, additional equipment, and expedited materials required to compress the schedule are acceleration costs caused by the owner's decision to add scope without adding time. These costs are the owner's financial responsibility through a separate change order.

32. B — Acoustic ceiling tiles manufactured before the 1980s commonly contained asbestos. The contractor should presume the tiles may contain asbestos until testing proves otherwise. OSHA's standard applies to materials containing more than 1% asbestos. Either test before removal or treat the material as ACM and follow all regulated work practices — the presumption protects workers from the serious health hazards of asbestos fiber inhalation.

33. A — A $54,000 discrepancy over 6 weeks demands immediate investigation. The project manager should compare subcontractor time sheets and payroll records against superintendent headcounts, gate records, and delivery documentation. If overbilling is confirmed, the subcontractor must provide restitution and the current payment must be adjusted. Intentional overbilling may warrant subcontract termination; administrative errors warrant corrective procedures.

34. C — An elevator pit 12 feet deep with limited entry/exit meets the OSHA definition of a confined space. Full confined space entry procedures are required: atmospheric testing (oxygen, toxics, flammables), continuous ventilation, trained attendant outside, established rescue procedures, written entry permit, and worker training. Elevator pits can accumulate hazardous gases, experience oxygen depletion, and present significant rescue challenges.

35. A — Three failing cylinders out of 12 represent specific concrete placements that may have deficient strength. The contractor must notify the architect and structural engineer with all test results. The engineer identifies which placements correspond to the failing cylinders and evaluates whether the inplace concrete is adequate for the design loads. Core samples from the actual structure may be required to verify the concrete's actual strength.

36. D — Gross profit: $4,600,000 − $3,680,000 = $920,000. Gross margin: $920,000 ÷ $4,600,000 = 20%. Net profit: $920,000 − $598,000 = $322,000. Net margin: $322,000 ÷ $4,600,000 = 7%. The surety evaluates gross margin for projectlevel profitability and net margin for overall business health. Both metrics are calculated as percentages of revenue.

37. A — Removing a guardrail from a floor opening and failing to reinstall it immediately is a fall protection violation. OSHA requires guardrails around floor openings at all times workers are exposed to the hazard. The employer's failure to ensure immediate reinstallation — and the lack of a safety procedure addressing temporary guardrail removal — demonstrates a systemic safety management failure that may elevate the citation's severity.

38. C — The architect's design error required a beam size revision that increased the contractor's cost. The contractor identified the error, submitted an RFI, and received a revised specification. The $22,000 cost increase flows to the owner through a change order because the owner contracted for a complete, codecompliant design. The owner may separately pursue recovery from the architect through the architect's professional liability insurance.

39. B — Each partner's 50% distributive share is $260,000. The SE tax base is $260,000 × 92.35% = $240,110. The SE tax rate is 15.3% — 12.4% Social Security (up to the annual wage

base) plus 2.9% Medicare on all earnings. The exact amount depends on the current Social Security wage base, but the approximate obligation is $33,600$36,700 per partner. Both general partners owe SE tax on their full distributive shares.

40. A — OSHA's steel erection standard requires columns to be adequately braced, guyed, or stabilized during erection. Erecting columns without temporary support leaves them vulnerable to wind, vibration, and other forces. The windstorm toppled unsecured columns — a foreseeable consequence of inadequate temporary stability. If workers had been present, the collapse could have been fatal. Temporary stability planning is a critical component of the steel erection sequence.

41. C — Deviations from approved lifesafety system designs require the fire protection engineer's review and written approval before installation. The contractor should submit both the original design and the proposed revision to the architect for professional evaluation. Even if the subcontractor's spacing may be adequate, the design professional must make that determination — contractors and subcontractors cannot unilaterally modify fire protection system designs.

42. B — Substantial completion means the project is sufficiently complete for the owner to occupy and use it for its intended purpose. Three minor items — a sticking door, paint touchup, and thermostat adjustment — are typical punch list items that do not prevent occupancy. Withholding the substantial completion certificate for these minor items may not be justified and could improperly delay retainage release, warranty start, and liquidated damages termination.

43. D — Actual rate: $420,000 ÷ $2,400,000 = 17.5%. Applied rate: $360,000 ÷ $2,400,000 = 15%. The 2.5% difference × $2,400,000 = $60,000 in unrecovered overhead. This $60,000 was subsidized from the company's profit — every project bid during the year carried 2.5% less overhead than was actually needed. The overhead rate must be recalculated annually using actual costs and projected volume.

44. A — The utility owner who failed to mark the water line in response to the 811 locate request is primarily liable. The contractor fulfilled their legal obligation by calling 811 and waiting for the locate response. The 811 system's effectiveness depends on utility owners responding accurately to locate requests — when a utility fails to mark its facilities, the resulting damage liability shifts to the utility owner.

45. C — On a fixedprice contract, the contract price is the contract price. The owner agreed to pay $1,100,000 regardless of how the contractor allocates costs internally. The $17,000 in unused contingency belongs to the contractor as part of the total profit — just like savings from efficient labor, favorable material pricing, or any other source. The contingency was the contractor's internal risk reserve embedded in the fixed bid price.

46. D — Gaspowered equipment operated indoors generates carbon monoxide — a colorless, odorless gas that migrates through building penetrations to occupied areas. Headaches and dizziness are classic early CO poisoning symptoms. The contractor must stop the gaspowered cutting immediately, ventilate affected areas, evacuate symptomatic workers for medical evaluation, and switch to electric equipment or implement continuous CO monitoring with adequate mechanical ventilation.

47. B — Liquidated damages: 30 days × $1,500 = $45,000. The mutual waiver of consequential damages bars the $120,000 lost rental income claim because lost rental income is a consequential (indirect) damage. The liquidated damages clause provides the exclusive delay remedy — it replaces actual damages with the preagreed daily amount. The owner recovers $45,000, not $165,000.

48. A — Courts have recognized exceptions to "no damages for delay" clauses including delays caused by the owner's active interference, bad faith, or delays so unreasonable they were not contemplated at contract formation. A 6week denial of site access may constitute active interference. The clause is not an absolute bar — the contractor may recover the $85,000 in delay costs if the facts support one of the recognized exceptions.

49. C — The tolerance zone around marked utilities requires nonmechanical excavation methods — handdigging or vacuum excavation. These methods allow the contractor to carefully expose the utility without the risk of mechanical damage from backhoe buckets or trencher teeth. Gas lines are particularly dangerous because mechanical damage can cause explosions and fatal injuries. The handdig requirement is absolute within the tolerance zone.

50. B — With 3 days remaining and a 78% score, the most productive approach is targeted refinement. Reviewing missed questions identifies specific weak areas. Strengthening those domains through focused study and reference guide practice produces more improvement than broad restudying or additional fulllength exams. One final short quiz confirms improvement. Verifying logistics and getting rest ensures peak performance on exam day.