

PRACTICE EXAM 17 — QUESTIONS 1-50

Format: Hypothesis-Reasoning Questions — each item presents a hypothesis, observation, or claim about a construction or business situation. Select the option that best provides the supporting reasoning, identifies the most likely cause, or correctly explains the principle behind the outcome.

1. A contractor uses an hourly wage of \$25 for estimating but the fully-burdened cost is \$38. The CFO hypothesizes the firm is systematically underbidding labor. Which reasoning best supports this hypothesis?

- A. Workers compensation insurance is excluded from labor burden under standard estimating practices in commercial construction work
- B. Labor burden includes payroll taxes, workers comp, benefits, and indirect costs, typically adding 40 to 60 percent above the base wage rate; estimating at base wage systematically underbids labor
- C. Labor burden is recovered through general overhead allocation rather than included in direct labor estimates on detailed takeoffs
- D. Fully-burdened labor rates apply only to union projects, not to open-shop SC commercial construction work

2. An SC contractor purchases \$80,000 of HVAC equipment in-state and pays SC sales tax to the supplier. The contractor installs the equipment and then collects SC sales tax from the customer on the installed price. The Department of Revenue rejects the collection. Which reasoning best supports the DOR action?

- A. The contractor must collect SC sales tax from all commercial customers regardless of supplier-side payment

B. HVAC installations are categorically exempt from SC sales and use tax under SC Code provisions

C. The supplier should have refunded the contractor's sales tax payment at point of sale on HVAC equipment

D. SC treats contractors as end consumers of materials installed into real property; the contractor paid sales tax at purchase and does not collect sales tax from the customer on the installed work

3. An SC subcontractor files a mechanic's lien Statement of Account 85 days after the last day of work on a private commercial project. The owner moves to discharge the lien as untimely. Which reasoning best refutes the owner's motion?

A. SC Code Title 29 Chapter 5 requires the lien Statement of Account to be filed within 90 days of the last day of work; the 85-day filing falls within the statutory window and the lien is timely

B. SC mechanic's lien filings must be made within 60 days of last work to be considered timely under Title 29

C. The lien is invalid because the 30-day preliminary notice was not delivered prior to commencement of work

D. Mechanic's liens may only be filed after the project reaches final completion under SC practice

4. A PM uses PERT on a foundation activity with optimistic = 8 days, most likely = 12 days, pessimistic = 22 days. The PM hypothesizes the expected duration exceeds the most likely estimate. Which reasoning best supports this hypothesis?

A. PERT expected duration equals the most likely estimate whenever the pessimistic estimate exceeds the optimistic estimate value

B. PERT discards the optimistic estimate and uses only the most likely and pessimistic values in the duration formula

C. PERT expected duration = $(O + 4M + P) \div 6 = (8 + 48 + 22) \div 6 = 13$ days; the 4× weight on most-likely combined with the wider gap to pessimistic pulls the expected value above 12

D. PERT expected duration equals the simple arithmetic average of $(8 + 12 + 22) \div 3 = 14$ days under standard formulas

5. A construction firm with 25 employees does not maintain an OSHA 300 Log. OSHA cites the firm for recordkeeping violations. Which reasoning best supports the citation?

- A. OSHA 300 Log recordkeeping is voluntary for construction firms regardless of employee headcount
- B. OSHA recordkeeping requirements apply only to manufacturing firms, not to construction contractors of any size
- C. The 300 Log is required only when an OSHA-recordable fatality occurs on a covered construction project
- D. OSHA requires the 300 Log of work-related injuries and illnesses for employers with more than 10 employees not in a partially exempt industry; construction is not partially exempt, so a 25-employee firm must maintain the log

6. An SC contractor hires a new employee. The employee completes I-9 Section 1 on day 1. The employer completes Section 2 on day 2. An ICE audit reviews the file. Which reasoning best supports the file being compliant?

- A. Section 1 must be completed by the employee no later than the first day of work, and Section 2 must be completed by the employer within 3 business days of the start date; both deadlines are met on this file
- B. Section 2 must be completed on the same day as Section 1 in all cases under federal immigration regulations
- C. Section 1 may be completed up to 14 days after the start of work under USCIS guidance for new hires
- D. Section 2 must be completed before Section 1, so the order of completion violates federal requirements

7. A contractor's surety pays \$300,000 on a performance bond claim after the contractor defaulted. The surety sues the contractor's individual owners who signed personal indemnity agreements. Which reasoning best supports the surety's recovery action?

A. Performance bond claims operate identically to insurance; the surety absorbs the loss without recourse to any party

B. A surety bond is a three-party guarantee; the surety has indemnity rights against the principal and against any individual indemnitors who signed personal guarantees for amounts paid on bonded claims

C. The surety's recovery is limited to the bid bond amount, with no further claim available against the principal or its owners

D. Surety recovery from individual indemnitors is barred until the corporate principal files for bankruptcy protection in federal court

8. A subcontractor's defective work damages an adjacent third-party property during a renovation. The GC's CGL carrier accepts the claim and pays the third party. Which reasoning best explains the carrier's acceptance?

A. CGL policies categorically exclude all damage caused by subcontractors regardless of who suffered the loss

B. The "your work" exclusion bars coverage for any property damage occurring during construction regardless of which property

C. CGL typically covers third-party property damage caused by the insured's operations; damage to adjacent property owned by someone other than the insured is the type of risk CGL is designed to address

D. CGL claims are limited to bodily injury and exclude all property damage claims under standard policy forms

9. A contractor estimates \$400,000 in direct costs and applies a 30 percent markup, arriving at a bid of \$520,000. The contractor expects to realize a 30 percent margin on the sale. Which reasoning best explains why the contractor's expectation is incorrect?

A. A 30 percent markup on cost equals about a 23 percent margin on sale; $\$120,000 \div \$520,000 = 23$ percent, while $\$120,000 \div \$400,000 = 30$ percent, so markup and margin do not produce the same percentage

- B. Markup and margin are mathematically identical and always produce the same percentage figure on every bid
- C. The contractor will achieve exactly a 30 percent margin because markup and margin are interchangeable terms
- D. The contractor should reduce direct costs to \$364,000 to achieve a 30 percent margin on the \$520,000 bid price

10. A subcontract contains a clear pay-if-paid clause stating receipt of owner payment is a condition precedent to payment of the sub. The owner becomes insolvent and the GC refuses payment. The sub sues the GC. Which reasoning best explains the typical legal consequence?

- A. Pay-if-paid clauses are universally unenforceable across all U.S. jurisdictions regardless of the language used
- B. The GC must pay the sub regardless of the clause because GCs bear ultimate payment risk on private work
- C. The clause is treated as a pay-when-paid timing provision and only delays the GC's payment obligation
- D. A properly drafted pay-if-paid clause using condition-precedent language typically shifts the risk of owner insolvency to the subcontractor; many courts enforce such clauses, leaving the sub to bear owner credit risk

11. An owner verbally directs additional excavation beyond the contract scope. The contractor performs the work, provides notice, and submits a claim. The owner refuses to issue a written change order. The contractor hypothesizes a constructive change has occurred. Which reasoning best supports this hypothesis?

- A. Constructive change doctrine applies only to design-build contracts under SC commercial construction practice
- B. The contractor's only remedy is to stop work until a written change order is formally issued by the owner

C. Constructive change occurs when the owner directs additional or different work without issuing a formal change order; with timely notice and documentation, the contractor may recover the reasonable value of the directed work

D. Verbal change directives are categorically unenforceable against the owner and the contractor bears the cost entirely

12. A 120-day project schedule has Activity Y with 7 days of total float and 4 days of free float. The PM hypothesizes that a 6-day delay to Activity Y will not delay project completion but will delay the immediate successor. Which reasoning best supports the hypothesis?

A. Total float and free float are equivalent quantities and produce identical schedule impacts when consumed

B. Total float of 7 days exceeds the 6-day delay (no project impact); free float of 4 days is exceeded by 2 days, so the immediate successor is delayed by 2 days

C. Free float of 4 days means the project will be delayed by 6 days because the activity cannot absorb the delay

D. Both float values are recalculated to zero once the activity begins, making the hypothesis structurally invalid

13. An SC subcontractor with 5 full-time employees does not carry workers compensation insurance. An employee is injured on the job and files a claim. The state imposes statutory penalties on the subcontractor. Which reasoning best supports the penalty?

A. SC requires workers compensation coverage when an employer has four or more regular employees; at 5 employees, the subcontractor is over the threshold and faces direct liability for medical costs and lost wages plus statutory penalties

B. SC requires workers compensation coverage only for firms with 15 or more employees on the payroll at year-end

C. Workers compensation insurance is voluntary in SC for all private employers regardless of employee headcount

D. The 4-employee trigger applies only to general contractors and excludes subcontractors performing trade work

14. A contractor performs commercial renovation involving demolition of 200 linear feet of asbestos-containing insulation. The contractor begins work without providing notification to the regulatory agency. EPA issues a citation. Which reasoning best supports the citation?

A. NESHAP notification requirements apply only to demolition projects exceeding 1,000 linear feet of regulated material

B. NESHAP requires only verbal notification to the local building department on the day work begins

C. NESHAP notification is voluntary for renovation projects below 500 linear feet of asbestos-containing material

D. NESHAP requires written notification at least 10 working days before regulated demolition or renovation activity involving threshold amounts of asbestos-containing material, and 200 linear feet exceeds the regulatory trigger

15. A contractor's WIP report shows overbilling of \$250,000 across active jobs. The CFO hypothesizes that the firm has billed in advance of work performed. Which reasoning best supports this hypothesis?

A. Overbilling means revenue has been under-recognized and additional billings must be issued immediately

B. Overbilling is irrelevant to financial management and affects only year-end audit adjustments

C. Overbilling represents billings issued in advance of work earned; the firm has collected cash before performing the corresponding work, creating a liability to complete the work and a temporary cash flow advantage to manage

D. Overbilling triggers automatic claims against the contractor's payment bond under standard SC contract provisions

16. A material supplier provides \$40,000 of materials to a subcontractor on a private commercial project. The sub fails to pay. The supplier records a mechanic's lien against the property. The owner

argues the lien is invalid because the owner paid the GC in full. Which reasoning best supports the supplier's lien rights?

- A. Material suppliers have no lien rights in SC and the recorded claim must be released immediately by the supplier
- B. SC mechanic's lien rights extend to suppliers furnishing materials to improve the property; the supplier's direct lien against the property exists independent of payments between the owner, GC, and sub
- C. Supplier lien rights apply only when the supplier has a direct contract with the owner of the property
- D. Suppliers must wait until the project is fully complete before filing any lien against the property under SC law

17. A contractor's bid is accepted on a public project but the contractor refuses to enter into the contract due to changed market conditions after bid opening. The owner forfeits the contractor's bid bond. Which reasoning best supports the forfeiture?

- A. A bid bond guarantees that the bidder will enter into the contract at the bid price if awarded; refusal to perform triggers forfeiture of the bid bond to the owner as liquidated damages for default
- B. Bid bonds are advisory only and the owner cannot enforce forfeiture under standard surety industry practice
- C. The owner must accept the contractor's refusal without consequence to either party in public bidding
- D. Bid bond forfeiture is limited to actual damages proven by the owner in a separate court proceeding

18. A construction firm pays \$1,200 to a sole proprietor electrician over the year for nonemployee compensation. The firm does not issue Form 1099-NEC. The IRS assesses a failure-to-file penalty. Which reasoning best supports the assessment?

- A. Form 1099-NEC is required only when total nonemployee compensation exceeds \$5,000 in a single calendar year

B. Sole proprietor subcontractors are categorically exempt from 1099-NEC reporting under IRS regulations

C. The \$600 threshold applies only to corporate payees and excludes sole proprietors from reporting entirely

D. Form 1099-NEC must be filed for nonemployee compensation of \$600 or more paid to an unincorporated payee in the course of trade or business; the \$1,200 payment exceeds the threshold

19. A liquidated damages clause sets damages at \$1,000 per day for late completion. The contractor finishes 20 days late. The owner withholds \$20,000. The contractor sues, arguing actual damages were only \$5,000. Which reasoning best explains the typical court outcome?

A. Liquidated damages clauses are per se unenforceable in SC private commercial construction contracts

B. LD clauses are enforced if the daily amount is a reasonable forecast of likely damages at contracting and actual damages are difficult to ascertain; courts do not require LD to match proven actual damages, so the \$20,000 is recoverable absent evidence of a penalty

C. The owner must reduce the LD amount to the actual proven damages of \$5,000 in all cases under SC law

D. The contractor is entitled to a 50 percent reduction in LD whenever actual damages fall below the LD amount

20. An SC contractor purchases \$30,000 of plumbing supplies from an out-of-state vendor who does not collect SC sales tax. The contractor installs the supplies on a residential project. The Department of Revenue assesses use tax. Which reasoning best supports the assessment?

A. The contractor is exempt from sales and use tax because plumbing supplies become part of real property at installation

B. The out-of-state vendor is responsible for remitting SC tax directly to the Department of Revenue on behalf of the contractor

C. SC contractors are end consumers of materials installed into real property; use tax applies to out-of-state purchases where SC sales tax was not collected, and the contractor must self-remit through MyDORWAY

D. Use tax applies only when the purchase amount exceeds \$50,000 in a single transaction under SC tax law

21. An owner terminates a contractor for cause without providing the 7-day written cure notice required by AIA A201. The contractor sues for wrongful termination. Which reasoning best supports the contractor's recovery?

A. AIA A201 requires written notice and a 7-day cure period before termination for cause; skipping the cure period converts the termination into a breach by the owner, exposing the owner to wrongful termination damages including lost profit

B. Termination for cause may be immediate and verbal under standard AIA A201 contract provisions

C. The contractor's lawsuit is procedurally improper without first completing mandatory arbitration under AIA A201

D. SC law does not enforce cure-period requirements in private commercial construction contracts under standard practice

22. A contractor's bid for a commercial project shows direct costs of \$300,000, overhead of \$60,000, and profit of \$40,000, for a total bid of \$400,000. The owner's value engineer asks why profit margin is only 10 percent of the bid. Which reasoning best explains the figure?

A. Profit margin equals $\text{profit} \div \text{direct cost} = \$40,000 \div \$300,000 \approx 13$ percent, not 10 percent of the bid price

B. The CFO's calculation is incorrect because profit margin should always equal markup percentage exactly

C. Profit must be calculated as a percentage of overhead only, producing a 67 percent margin in this case

D. Profit margin = $\text{profit} \div \text{bid price} = \$40,000 \div \$400,000 = 10$ percent; this falls within typical construction profit ranges (8 to 15 percent) for competitive commercial work and reflects the firm's risk profile

23. A project's critical path is 240 days. The PM crashes two critical activities, reducing the critical path to 220 days. The project still finishes 5 days late. The PM hypothesizes a previously non-critical activity became critical. Which reasoning best supports this hypothesis?

- A. Crashing always shortens projects without affecting other activities or float values on the schedule
- B. Crashing causes the schedule to revert to its original duration after a brief delay recovery period
- C. When critical activities are compressed, previously non-critical activities with low float may become the new critical path; if those new critical activities slip, the project finishes late despite the original recovery effort
- D. Crashing eliminates float on all activities simultaneously, making the new critical path identical to the original

24. A contractor's mediation under AIA A201 fails to resolve a dispute. The contract requires arbitration as the binding dispute resolution mechanism. The contractor files in state court instead. The owner moves to compel arbitration. Which reasoning best supports the motion?

- A. Court filings always supersede contractual arbitration clauses regardless of the contract language or dispute type
- B. AIA A201 typically requires arbitration (when elected) as the binding dispute resolution mechanism after mediation; a court has no jurisdiction over disputes covered by a valid arbitration clause and will generally compel arbitration under the FAA
- C. Mediation always satisfies the dispute resolution requirement under AIA A201, making arbitration entirely optional
- D. The contractor must complete a second round of mediation before filing in any forum under AIA A201 procedures

25. A subcontractor records a mechanic's lien but the legal description identifies the wrong property — the lot adjacent to the project site. The owner of the actual project property demands the lien be released. Which reasoning best supports the demand?

- A. A mechanic's lien must accurately identify the property improved; a lien recorded against the wrong property fails to attach to the actual improved property, and the lienor must re-record within the 90-day window or lose lien rights entirely
- B. The recorded lien automatically transfers to the correct property once the recording error is discovered by the parties
- C. The county recording office is responsible for correcting clerical errors and the lien remains valid pending correction
- D. The lien is fully enforceable regardless of property description errors under SC recording statutes and case law

26. A contractor's balance sheet shows current assets of \$600,000 and current liabilities of \$300,000. The bank's underwriter calculates a current ratio of 2.0 and characterizes liquidity as strong. Which reasoning best supports the underwriter's view?

- A. Current ratio above 1.0 is always considered weak liquidity for construction firms regardless of magnitude
- B. Current ratio should be replaced by debt-to-equity ratio for construction firm underwriting analysis at all banks
- C. Current ratio = current assets ÷ current liabilities = $\$600,000 \div \$300,000 = 2.0$; construction lenders typically prefer ratios of 1.5 to 2.0 because retainage and slow pay can erode liquidity below 1.0, so 2.0 provides adequate cushion
- D. A 2.0 current ratio indicates excessive working capital that should be returned to shareholders as dividends

27. A contractor bidding a \$700,000 fixed-price project applies a 3 percent contingency. The PM later argues the contingency should have been 7 percent based on the project's design uncertainty and unfamiliar site conditions. Which reasoning best supports the PM's view?

- A. Contingency must always equal exactly 10 percent of bid price regardless of the project's risk profile or design state

B. Contingency is identical to profit margin and is set by firm policy without regard to project-specific risk considerations

C. Contingency is not permitted in fixed-price bids under SC commercial procurement law and must be excluded

D. Contingency reflects the contractor's risk allowance for unknowns; on work with high design uncertainty or unfamiliar site conditions, a 7 percent contingency is more defensible than 3 percent because the probability and magnitude of cost variations are higher

28. A contractor disturbs 2 acres of soil on a commercial site development project. The contractor has not obtained an NPDES Construction General Permit. EPA issues a Notice of Violation. Which reasoning best supports the violation?

A. NPDES coverage applies only to industrial discharge sites and excludes general construction projects entirely

B. Construction projects disturbing 1 acre or more require NPDES Construction General Permit coverage; the 2-acre disturbance exceeds the threshold and triggers permit, NOI submission, and SWPPP obligations

C. The contractor is exempt from NPDES requirements because soil disturbance on construction projects is temporary

D. NPDES requirements apply only to projects with active stream crossings, not to general commercial site work

29. A contractor files Form 941 quarterly. The first-quarter filing is due April 30. The contractor files on May 20. The IRS assesses a failure-to-file penalty plus interest. Which reasoning best explains the assessment?

A. Form 941 reports quarterly federal income tax and FICA withholdings; late filing triggers a percentage-based penalty (typically 5 percent per month up to 25 percent) plus interest on the unpaid tax balance, regardless of firm size

B. The IRS waives all first-time late filing penalties without exception under standard administrative practice

C. Form 941 is required only for firms with more than 50 employees on the payroll at quarter-end reporting

D. Form 941 was discontinued and replaced by Form 940 for all quarterly payroll tax reporting purposes

30. A contractor's schedule shows Activity Z has 10 days of total float and 6 days of free float. The PM directs a 5-day delay to Activity Z. The PM hypothesizes that neither project completion nor the successor will be delayed. Which reasoning best supports the hypothesis?

A. Free float must be entirely consumed before total float begins to absorb any delay impacts on the schedule

B. The 5-day delay automatically delays the project by 5 days regardless of the float values associated with the activity

C. Total float of 10 days exceeds the 5-day delay (project unaffected); free float of 6 days also exceeds the 5-day delay (successor unaffected); both floats absorb the delay, supporting the hypothesis

D. Total and free float are recalculated to zero once any activity begins, making the float analysis invalid

31. An out-of-state contractor performs \$80,000 of commercial work in SC without obtaining an SC contractor license. The SC LLR issues a stop-work order. Which reasoning best supports the order?

A. Out-of-state contractors are exempt from SC licensing requirements when performing commercial work below \$100,000

B. SC requires general contractor licensing for commercial work exceeding \$5,000; the \$80,000 project far exceeds the threshold and requires proper SC licensure regardless of the contractor's home state

C. SC licensing applies only to residential work and excludes commercial projects from licensure requirements

D. Out-of-state contractors may operate freely in SC under their home-state license without additional SC registration

32. A contractor names a property owner as additional insured on the contractor's CGL policy. A third party is injured during the contractor's operations and sues the owner directly. The owner tenders the claim to the contractor's CGL carrier, which accepts. Which reasoning best supports the acceptance?

- A. Additional insureds have identical coverage rights as named insureds in all situations and contexts without limitation
- B. CGL carriers must defend any claim against an additional insured regardless of policy terms or endorsement scope
- C. Additional-insured status applies only after the named insured has been first found liable in a separate proceeding
- D. Additional-insured endorsements typically extend coverage to the named additional insured for liability arising from the named insured's (contractor's) operations; when the injury arises from the contractor's work, the tender is properly accepted

33. A contractor's WIP report shows underbilling of \$220,000 across active jobs. The CFO hypothesizes this creates a working capital strain on the firm. Which reasoning best supports the hypothesis?

- A. Underbilling represents revenue earned but not yet billed or collected, requiring the firm to fund completed work from its own resources; the \$220,000 position creates a working capital strain even when the income statement appears healthy
- B. Underbilling means revenue has been over-recognized in prior periods and must be reversed through the accounting books
- C. Underbilling is irrelevant to cash flow and affects only year-end tax reporting categories on the income statement
- D. Underbilling triggers automatic lien rights against owners under standard SC construction contract provisions

34. An SC subcontractor files a lien Statement of Account within the 90-day statutory window but fails to file an enforcement suit within 6 months of the lien filing date. The owner moves to discharge the lien. Which reasoning best supports the discharge?

- A. The 6-month enforcement deadline applies only to public projects under SC law and not to private commercial work
- B. Lien rights are preserved indefinitely once the Statement of Account is timely filed within the 90-day window
- C. SC Code Title 29 Chapter 5 imposes two strict deadlines: filing within 90 days and enforcement suit within 6 months of filing; missing either deadline permanently extinguishes the lien regardless of the claim's merit
- D. The 6-month enforcement deadline may be tolled by ongoing settlement negotiations between the contracting parties

35. A contractor's takeoff for a structural steel package shows 45 tons. The actual delivered quantity required is 52 tons. The contractor hypothesizes the takeoff was significantly in error. Which reasoning best supports an alternative explanation?

- A. Steel takeoffs are always exact and never require waste or overage allowances under standard estimating practice
- B. The 7-ton difference is entirely attributable to mill ordering errors by the supplier and not to the contractor's takeoff
- C. Structural steel projects always require 20 percent overage regardless of the takeoff method or design state
- D. Structural steel typically requires a 3 to 8 percent waste/overage allowance for cuts, connections, and field adjustments; a 7-ton variance on a 45-ton takeoff is about 15 percent overage, suggesting under-budgeted waste or design changes rather than a pure takeoff error

36. A subcontract contains a flow-down clause incorporating "all terms of the prime contract" into the subcontract. The prime contract has a 45-day pay application cycle. The subcontract is silent on pay cycle. Which reasoning best supports applying the 45-day cycle to the sub?

- A. Flow-down clauses generally incorporate the prime contract's substantive terms (payment cycle, dispute resolution, change orders, etc.) into the subcontract; absent contrary subcontract language, the prime's 45-day pay cycle applies to the sub by reference

B. Flow-down clauses transfer only termination rights to the subcontract and exclude payment terms from incorporation

C. The sub is entitled to weekly payment under SC law regardless of any prime contract terms incorporated by flow-down

D. The 45-day pay cycle is per se unenforceable in subcontracts and the sub may demand immediate payment on submission

37. A contractor's OSHA 300 Log for the prior year shows 6 recordable incidents and total hours worked of 300,000. The contractor calculates $TRIR = 4.0$ and notes that owners are excluding the firm from bid lists. Which reasoning best explains the impact?

A. TRIR is calculated only on fatalities and serious injury cases, not on all OSHA recordable incidents

B. $TRIR = (\text{recordables} \times 200,000) \div \text{total hours} = (6 \times 200,000) \div 300,000 = 4.0$; many industrial and federal owners require TRIR below benchmarks of 2.0 to 3.0, so a 4.0 may disqualify the contractor from those bid lists

C. TRIR has no bearing on bid eligibility for construction projects in any sector or jurisdiction under federal law

D. TRIR is calculated by dividing recordables by total hours, producing a fractional value below 1.0 in all cases

38. An architect issues a Certificate for Payment for \$200,000 on a contractor's pay application under AIA A201. The owner refuses to pay, citing alleged defective work the architect did not flag. The contractor insists on payment. Which reasoning best supports the contractor's position?

A. Under AIA A201, the architect's Certificate for Payment represents the work has been performed as represented and is a condition precedent to the owner's payment obligation; the owner cannot withhold certified amounts unilaterally without following the contract's withholding procedures

B. The architect's certificate is advisory only and does not obligate the owner to pay under any AIA A201 provision

C. The owner has absolute discretion to refuse certified amounts under standard construction industry practice

D. The contractor must accept the owner's defective-work claim and resubmit a corrected pay application within 7 days

39. A PM must choose between crashing and fast-tracking to recover 10 days on a delayed project. The PM hypothesizes the two techniques carry different risk profiles. Which reasoning best supports the hypothesis?

A. Crashing and fast-tracking carry identical risk profiles and the choice between them is arbitrary at the PM's discretion

B. Crashing creates design coordination risk while fast-tracking creates direct cost risk, opposite to the typical pattern

C. Both techniques reduce project scope and are financially equivalent in their bottom-line impact on the contractor

D. Fast-tracking overlaps sequential phases (such as starting construction before design is complete), which can introduce rework if downstream design changes invalidate earlier work; crashing adds resources (overtime, additional crews), directly raising labor and material costs

40. A contractor's income statement shows \$6 million revenue and \$5.5 million total expenses, yielding \$500,000 net income. The balance sheet shows \$2.8 million total equity. The bank calculates $ROE \approx 18$ percent. The CFO hypothesizes the firm is performing at or above industry norm. Which reasoning best supports the hypothesis?

A. ROE below 5 percent indicates outstanding performance for construction firms by industry benchmarks

B. ROE is irrelevant to construction firm underwriting and lenders disregard it in lending decisions entirely

C. $ROE = \text{net income} \div \text{equity} = \$500,000 \div \$2.8 \text{ million} \approx 18$ percent; construction firm ROE benchmarks typically range from 12 to 20 percent, so 18 percent indicates the firm is generating returns at or above industry norm

D. ROE above 50 percent is the required minimum for construction firms under bank underwriting standards

41. A contractor submits a low bid of \$580,000 on a public project. After bid opening, the contractor discovers a \$50,000 quantity error in the steel takeoff. The contractor requests bid withdrawal before signing the contract. Which reasoning best supports the standard outcome?

A. Public bidding generally permits withdrawal only for clerical or quantity errors that are demonstrable, prompt, and made in good faith; the contractor must provide written notice and supporting takeoff documentation before award and may forfeit the bid bond

B. Bid errors of any kind allow automatic withdrawal without any consequence to the bidder under SC procurement rules

C. The contractor must perform at the erroneous bid price with no recourse against the owner or the surety

D. The owner can compel performance and withdrawal is not permitted regardless of the type or magnitude of the bid error

42. An SC contractor classifies a journeyman electrician as an independent contractor on Form 1099-NEC. The IRS reclassifies the worker as an employee, triggering back FICA and FUTA liability. Which reasoning best supports the reclassification?

A. All electricians are statutorily classified as employees under IRS rules regardless of working conditions or arrangements

B. The IRS common-law test evaluates behavioral control, financial control, and the relationship between worker and firm; a journeyman working set hours under direct supervision on the contractor's projects typically fails the test

C. Independent contractor status is automatically revoked after 90 days on the same project under IRS guidance documents

D. The contractor needed only to issue both a Form W-2 and Form 1099-NEC to satisfy IRS reporting requirements

43. A contractor performing a commercial demolition disturbs material containing 1.5 percent asbestos by weight. The superintendent argues the material falls below the 1 percent NESHAP threshold and triggers no obligations. Which reasoning best refutes the superintendent's argument?

A. The 1 percent NESHAP threshold applies only to friable insulation materials, not to demolition debris of any type

B. NESHAP applies only when asbestos content exceeds 5 percent by weight in the regulated building material

C. The contractor must obtain owner consent before applying any NESHAP threshold to project materials under EPA rules

D. NESHAP defines asbestos-containing material as material containing more than 1 percent asbestos by weight; the 1.5 percent content exceeds the threshold and triggers NESHAP notification, handling, and disposal protocols

44. A contractor's unit-price bid for grading is \$15 per cubic yard against an estimated 4,000 cubic yards. The actual quantity graded is 5,800 cubic yards. The contract is unit-price, not lump sum. The owner pays \$87,000 ($5,800 \times \15). The contractor objects. Which reasoning best supports the owner's position?

A. The contractor is entitled to renegotiate the unit rate upward for any quantity exceeding the original estimate

B. Unit-price contracts automatically convert to lump sum once estimated quantities are exceeded by more than 25 percent

C. Unit-price contracts pay the actual quantity at the contracted unit rate; the contractor accepted unit-price terms knowing quantities might vary, and additional quantity is paid at the bid rate absent specific "differing quantity" or "unbalanced bid" clauses

D. The owner must pay double the unit rate for any excess quantities exceeding the original estimate under SC law

45. An SC contractor enters into an oral agreement for a \$180,000 commercial renovation. The owner later disputes the scope and refuses to pay. The contractor sues to enforce the oral agreement. Which reasoning best explains why the contractor faces significant difficulty?

A. Oral construction contracts may be legally enforceable in SC, but proving scope and terms is extremely difficult without written documentation; the case depends on circumstantial evidence such as witnesses, drawings, partial performance, and change orders

B. Oral contracts are automatically void in SC for any contract amount above \$500 under the Statute of Frauds

C. SC law requires all construction contracts to be in writing regardless of value or scope under SC Code provisions

D. The dispute must be resolved through binding arbitration before the contractor can file suit in court under SC procedure

46. A subcontractor records a mechanic's lien for \$80,000 on a private commercial project. The owner deposits a release bond of \$120,000 with the court. The lien is removed from the property record. The sub hypothesizes the lien claim is now extinguished. Which reasoning best refutes the hypothesis?

A. Release bonds in SC may only be filed on state-owned property, not on private commercial construction work

B. Bonding off transfers the lien from the property to the release bond as security; the underlying claim remains alive, and the sub must still pursue enforcement against the bond within the statutory window to collect

C. The underlying lien claim is automatically extinguished when a release bond is deposited with the clerk of court

D. The sub's lien rights transfer to the owner of the bond, not against the property or the bond itself as security

47. A contractor's cash basis income is \$300,000 but accrual basis income is \$480,000. The CFO hypothesizes the firm has significant outstanding receivables and accrued but unbilled revenue. Which reasoning best supports the hypothesis?

A. Cash and accrual basis accounting always produce identical income figures in any reporting period for construction firms

B. Cash basis income exceeding accrual basis by 60 percent is the normal pattern for SC construction firms in this size range

C. The discrepancy must be reversed in the next accounting period to balance the two reporting methods on the books

D. Accrual basis recognizes revenue when earned regardless of cash collection; the \$180,000 gap indicates the firm has earned more than collected — through unbilled work, outstanding pay applications, or accounts receivable not yet paid

48. An "or equal" specification names "Brand A" lighting fixtures but allows substantial equivalents. The contractor proposes "Brand B" with identical lumen output, color temperature, and warranty. The architect rejects without explanation. The contractor hypothesizes the rejection is procedurally improper. Which reasoning best supports the hypothesis?

A. "Or equal" specifications obligate the architect to accept any proposed substitution without further review or evaluation

B. Substitution requests are advisory only and the architect has absolute discretion to reject without any explanation given

C. "Or equal" specifications obligate the architect to evaluate proposed substitutions for substantial equivalence; arbitrary rejection without articulating how the proposed product fails the equivalence standard may breach the substitution-review obligation

D. The contractor must accept the architect's substitution decision regardless of the substantive merit of the request

49. A construction contract includes a no-damage-for-delay clause. The owner causes a 45-day delay through late drawing releases. The contractor sues for delay damages of \$60,000. Which reasoning best explains the typical outcome?

A. The contractor is entitled to terminate the contract for any owner-caused delay regardless of contract language to the contrary

B. A no-damage-for-delay clause typically limits the contractor's monetary recovery for delays even when caused by the owner; courts generally enforce these clauses but may carve out exceptions for active interference, bad faith, or fundamental breach, while allowing time extensions but not money damages

C. No-damage-for-delay clauses are per se unenforceable in SC private commercial construction contracts and case law

D. The contractor must recover all delay damages caused by the owner regardless of contract language to the contrary

50. A contractor includes a 2 percent bond cost line item in a bid for a \$3 million project. The actual surety bond costs total \$55,000. The CFO reviews the variance and concludes the estimate was reasonable. Which reasoning best supports the conclusion?

A. Surety bond cost is always exactly 1 percent of contract value regardless of project size or contractor financials

B. Bond cost is not a recoverable bid line item under SC procurement rules and must be absorbed entirely by profit

C. Surety bond cost typically runs 1 to 3 percent of contract value, varying by contractor financials, project size, and surety underwriting; on \$3 million a 2 percent allowance equals \$60,000, closely matching the actual \$55,000 within typical estimating tolerance

D. Bond cost equals 10 percent of contract value for all SC contractors as a statutory minimum requirement

PRACTICE EXAM 17: ANSWER KEY AND EXPLANATIONS

1. B — Labor burden includes employer-paid payroll taxes (FICA, FUTA, SUTA), workers compensation premiums, health and retirement benefits, and indirect labor costs. These typically add 40 to 60 percent above the base hourly wage, so a \$25 wage usually carries a fully-burdened cost of \$35 to \$40. Estimating at the base wage rather than the burdened rate systematically underbids labor by the full burden percentage and erodes margins on every project.
2. D — South Carolina treats contractors as the end consumers of materials installed into real property. The contractor pays sales tax to the supplier at the point of purchase and does not collect sales tax from the customer on the installed value of the work. The contractor's collection from the customer was improper because the tax obligation runs to the contractor's material purchases, not to the homeowner.
3. A — SC Code Title 29 Chapter 5 requires the lien Statement of Account to be filed within 90 days of the last day of work on the project. An 85-day filing falls within the statutory window and is timely on its face. The 90-day deadline is strict but the lien is valid as long as it is filed before the window closes.
4. C — PERT expected duration = $(O + 4M + P) \div 6 = (8 + 48 + 22) \div 6 = 13$ days. The 4× weight on the most-likely value, combined with equal weights on the two extremes, pulls the expected duration above the most-likely estimate whenever the pessimistic-to-mode gap exceeds the mode-to-optimistic gap (10 days versus 4 days here). This asymmetry is why PERT is preferred over a simple arithmetic average for risk-aware scheduling.

5. D — OSHA requires employers with more than 10 employees who are not in a partially exempt industry to maintain the OSHA 300 Log of work-related injuries and illnesses. Construction (NAICS 23) is not on the partially exempt list, so a 25-employee construction firm falls squarely within the recordkeeping requirement. Failure to maintain the log is a citable violation regardless of whether any recordable incident has occurred.
6. A — Form I-9 Section 1 must be completed by the employee no later than the first day of work, and Section 2 must be completed by the employer within 3 business days of the employee's start date. Day 1 for Section 1 and day 2 for Section 2 both fall within these deadlines. ICE audits the form against these timing rules, and proper sequencing satisfies the requirements.
7. B — A surety bond is a three-party guarantee among the obligee (owner), the principal (contractor), and the surety. Unlike insurance, the surety reserves indemnity rights against the principal and against any individual indemnitors who signed personal guarantees as part of the bonding agreement. The \$300,000 paid on the performance bond is recoverable from the owners under those personal indemnity obligations.
8. C — CGL policies are designed to cover the insured's liability for bodily injury and property damage to third parties arising from the insured's operations. Damage to an adjacent third-party property caused by the GC's subcontractor is exactly the type of risk CGL covers, and the "your work" exclusion does not apply because the damaged property belongs to someone other than the insured. The carrier's acceptance is consistent with the standard CGL coverage scope.
9. A — Markup is profit expressed as a percentage of cost, while margin is profit expressed as a percentage of sale price. A 30 percent markup on \$400,000 of cost adds \$120,000 to reach a bid of \$520,000, and $\$120,000 \div \$520,000$ equals about 23 percent — the margin, not 30 percent. To achieve a 30 percent margin on sale, the contractor would need a markup of about 43 percent on cost.
10. D — A properly drafted pay-if-paid clause uses explicit condition-precedent language that makes receipt of owner payment a true condition to the GC's payment obligation. Many courts enforce these clauses when the language is unambiguous, which shifts the risk of owner insolvency from the GC to the subcontractor. The sub bears the credit risk of the owner and generally cannot recover from the GC when the owner fails to pay.
11. C — Constructive change doctrine recognizes that an owner's directive to perform additional or different work — even without a formal change order — effectively modifies the contract. With timely written notice and proper documentation of the directed work and its cost impact, the contractor can recover the reasonable value of the changed work. The doctrine prevents owners from extracting extra work without paying simply by refusing to sign a change order.
12. B — Total float is the maximum delay an activity can absorb without affecting project completion, while free float is the delay it can absorb without affecting the immediate successor. A 6-day delay falls within the 7 days of total float, so project completion is unaffected, but it exceeds the 4 days of free float by 2 days, delaying the immediate successor by exactly that amount. The two floats quantify two distinct delay impacts and must be evaluated separately.
13. A — South Carolina requires workers compensation coverage when an employer has four or more regular employees. At 5 full-time employees, the subcontractor is above the statutory threshold and must carry coverage. Failure to provide coverage exposes the employer to direct liability for medical costs and lost wages plus statutory penalties imposed by the SC Workers Compensation Commission.
14. D — NESHAP requires written notification to EPA or the state delegated authority at least 10 working days before regulated demolition or renovation activity disturbing threshold amounts of

asbestos-containing material. The contractor's failure to provide the 10-day pre-activity notice is a citable violation regardless of awareness or intent. The duty to inspect for ACM and submit timely notification is the regulatory baseline for any commercial demolition or renovation project.

15. C — Overbilling represents pay applications submitted and payments collected in advance of the work actually earned to date. The \$250,000 overbilled position means the firm has collected cash before performing the corresponding work, creating a temporary cash flow advantage but also a liability to complete that work without additional billing. Active management is required because future production costs must be funded from those overbilling proceeds.
16. B — SC mechanic's lien rights extend independently to suppliers and subcontractors furnishing labor or materials to improve real property, not just to those in direct contract with the owner. The supplier's lien runs against the property itself, so the owner's payment to the GC and the GC's payment to the sub do not defeat the supplier's direct claim. The supplier preserves recovery rights by recording within the 90-day statutory window.
17. A — A bid bond guarantees that the successful bidder will execute the contract at the bid price if awarded. When a bidder refuses to perform after award, the owner is entitled to forfeit the bid bond as liquidated damages for the bidder's default, typically up to the bid bond face value or the difference between the low bid and the next-lowest responsive bid. The forfeiture protects the integrity of the public bidding process from bidders who back out for opportunistic reasons.
18. D — Form 1099-NEC must be filed for nonemployee compensation of \$600 or more paid to an unincorporated payee in the course of trade or business. The \$1,200 paid to the sole proprietor electrician exceeds the threshold and triggers the filing requirement, regardless of whether the payee correctly reports the income on a personal return. Failure-to-file penalties accrue per form and escalate with the length of the delay.
19. B — Liquidated damages clauses are enforced when the daily amount is a reasonable forecast of likely damages at the time of contracting and actual damages are difficult to ascertain. Courts generally do not require the LD figure to match proven actual damages at breach, so the \$20,000 is recoverable even though actual damages were only \$5,000. The contractor's only path to reduce the withhold is to show the LD operates as a penalty rather than a reasonable forecast.
20. C — South Carolina treats contractors as end consumers of materials installed into real property. Use tax applies when SC sales tax was not collected at point of sale by the supplier, and the contractor must self-remit through MyDORWAY at the applicable state and local rate. The tax burden is the same whether materials are purchased in-state or from an out-of-state vendor — what changes is who remits the tax.
21. A — AIA A201 requires the owner to provide written notice and a 7-day cure period before terminating the contractor for cause. Skipping the cure period converts what was framed as a for-cause termination into a wrongful termination, exposing the owner to damages including the contractor's anticipated profit on remaining work and unrecovered costs. The cure period exists to give the contractor a chance to correct the cited default before losing the contract.
22. D — Profit margin is calculated as profit divided by total bid price, not by direct cost or overhead. Here, $\$40,000 \div \$400,000$ equals exactly 10 percent, which falls within the typical 8 to 15 percent profit margin range for competitive commercial construction work. The figure is appropriate given the firm's overhead recovery and risk profile on a project of this size.
23. C — Crashing the original critical path can elevate a previously non-critical activity with low float into the new critical path. The PM must re-run the CPM analysis after any compression because the new critical path may include different activities, and slips on those newly critical activities

will delay the project despite the original recovery effort. Continuous float monitoring across all paths is essential during schedule compression.

24. B — AIA A201 typically requires arbitration (when elected at contract execution) as the binding dispute resolution mechanism after mediation fails. A court has no jurisdiction over disputes covered by a valid arbitration clause and will generally grant a motion to compel arbitration under the Federal Arbitration Act and applicable state arbitration statutes. The contractor's court filing violates the contractual dispute resolution sequence and the case will be diverted to the arbitrator.
25. A — A mechanic's lien must accurately identify the property improved because the lien attaches to the specific real estate described in the recording. A lien recorded against the wrong property fails to attach to the actual improved property, and the lienor must re-record a corrected lien within the original 90-day statutory window or lose lien rights entirely. The recording office has no duty to correct errors after the fact, and there is no automatic transfer mechanism.
26. C — Current ratio equals current assets divided by current liabilities, so $\$600,000 \div \$300,000$ produces a ratio of 2.0. Construction lenders typically prefer ratios in the 1.5 to 2.0 range because retainage, slow pay, and disputed billings can quickly erode liquidity below 1.0 without warning. A 2.0 ratio provides adequate cushion to absorb working capital surprises common in the industry.
27. D — Contingency is the contractor's risk allowance for project unknowns and should scale with the project's actual risk profile. On work with high design uncertainty or unfamiliar site conditions, a 7 percent contingency is more defensible than 3 percent because both the probability and magnitude of cost variations are higher. Contingency sizing is judgment-based and project-specific, not formula-based or set to a fixed percentage across all jobs.
28. B — The NPDES Construction General Permit applies to construction sites that disturb 1 acre or more, including portions of larger common plans of development. The 2-acre site exceeds the 1-acre threshold and requires CGP coverage, Notice of Intent submission, and a Storm Water Pollution Prevention Plan (SWPPP). Failure to obtain coverage before disturbing soil is a citable Clean Water Act violation.
29. A — Form 941 reports quarterly federal income tax withholdings and FICA contributions, with first-quarter filings due April 30. Late filing triggers a failure-to-file penalty typically calculated at 5 percent of the unpaid tax per month (or part of a month), capped at 25 percent, plus interest on any unpaid balance. The penalty applies to all employers regardless of headcount or filing history.
30. C — Total float of 10 days and free float of 6 days both exceed the 5-day delay, so the delay is fully absorbed without consequence to either project completion or the immediate successor. Total float measures the activity's delay tolerance against the project end date, while free float measures tolerance against the immediate successor; here, both floats remain positive after absorbing the delay. The PM's hypothesis holds because no float threshold is exceeded.
31. B — South Carolina requires general contractor licensing for commercial construction work exceeding \$5,000 in total contract value. The \$80,000 project far exceeds the statutory threshold and triggers full licensure requirements, regardless of the contractor's home state or licensure elsewhere. SC LLR has authority to issue stop-work orders against unlicensed contractors, and unlicensed work may also be unenforceable in SC courts.
32. D — Additional-insured endorsements on a contractor's CGL typically extend coverage to the named additional insured for liability arising from the named insured's (contractor's) operations. When the third-party injury arises from the contractor's work and the owner is sued, the owner's tender to the contractor's CGL carrier is properly accepted under the endorsement. The scope of

additional-insured coverage is defined by the specific endorsement language and the connection to the contractor's operations.

33. A — Underbilling represents work that has been performed but not yet billed to or collected from the owner. The \$220,000 underbilled position means the firm is funding completed work from its own working capital while waiting to bill and collect, which strains liquidity even if the income statement shows healthy earnings. The pattern is a leading indicator of cash flow stress and warrants tighter billing discipline and pay-application timing.
34. C — SC Code Title 29 Chapter 5 imposes two strict statutory deadlines on mechanic's liens: the Statement of Account must be filed within 90 days of last work, and an enforcement suit must be commenced within 6 months of the lien filing. The deadlines run independently, and missing either one permanently extinguishes the lien regardless of the merits of the underlying claim or any ongoing settlement discussions.
35. D — Structural steel typically requires a 3 to 8 percent waste/overage allowance for cuts, end-of-bar drops, connection plates, splice plates, and field adjustments. A 7-ton variance on a 45-ton takeoff equals about 15 percent overage — higher than the normal range — which suggests either an under-budgeted waste factor in the original estimate or design changes during execution rather than a pure takeoff error. Estimating practice applies a waste multiplier explicitly so this variance does not surprise the project.
36. A — Flow-down clauses generally incorporate the substantive terms of the prime contract (payment cycle, dispute resolution, change order procedures, scheduling provisions) into the subcontract. Absent contrary subcontract language, the prime's 45-day pay cycle applies to the sub by reference. Flow-down provisions are read broadly because their purpose is to align the sub's rights and obligations with the GC's position under the prime.
37. B — Total Recordable Incident Rate equals (recordable incidents \times 200,000) divided by total hours worked. Here, $(6 \times 200,000) \div 300,000$ equals exactly 4.0. Many industrial and federal owners require pre-qualification with TRIR below 2.0 to 3.0, so a 4.0 disqualifies the contractor from those bid lists until safety performance improves.
38. A — Under AIA A201, the architect's Certificate for Payment represents that the certified work has been performed in accordance with the contract and is a condition precedent to the owner's payment obligation. The owner cannot withhold certified amounts unilaterally without following the contract's withholding procedures, which require written notice, the specific basis, and the amount being withheld. Bypassing those procedures exposes the owner to a breach claim and possible interest on the wrongfully withheld funds.
39. D — Fast-tracking overlaps sequential phases — for example, beginning construction before design is fully complete — which can introduce rework if downstream design changes invalidate earlier work. Crashing adds resources such as overtime, additional crews, or premium-rate labor, which directly raises labor and material costs without changing the work sequence. The two compression techniques carry genuinely different risk profiles, which is why selection depends on whether design coordination or cost exposure is the more tolerable risk.
40. C — Return on Equity equals net income divided by total equity, so $\$500,000 \div \2.8 million produces an ROE of approximately 18 percent. This falls within the typical 12 to 20 percent benchmark range for construction firms and indicates the firm is generating returns at or above industry norms. The figure supports positive lender and surety reviews for additional bonding capacity and credit lines.
41. A — Public bidding generally permits withdrawal only for clerical or quantity errors that are demonstrable, prompt, and made in good faith. The contractor must provide written notice and

- supporting documentation (such as the original takeoff sheets showing the error) typically before award and may still forfeit the bid bond as the cost of withdrawal. The standard balances the bidder's right to correct genuine mistakes against the integrity of the competitive bidding process.
42. B — The IRS common-law test evaluates three categories: behavioral control (instructions and training), financial control (investment, expenses, method of payment), and the relationship between the parties (contracts, benefits, permanency). A journeyman electrician working scheduled hours under direct supervision on the contractor's own projects typically fails the test because the firm controls how, when, and where the work is done. Reclassification triggers back FICA, FUTA, withholding, and possible misclassification penalties.
 43. D — NESHAP defines asbestos-containing material as any material containing more than 1 percent asbestos by weight. The 1.5 percent content exceeds the regulatory threshold and triggers full NESHAP requirements, including notification, work practice standards, wetting, containment, and proper disposal of waste. The superintendent's argument inverts the threshold — the rule applies to material above 1 percent, not below.
 44. C — Unit-price contracts pay the actual quantity at the contracted unit rate. The contractor accepted unit-price terms knowing the estimated quantities were not guaranteed, so additional quantities are paid at the bid rate without further entitlement absent specific "differing quantity" or "unbalanced bid" clauses. This is the structural risk allocation of unit-price contracts: quantity risk shifts to the owner, but unit-cost risk stays with the contractor.
 45. A — Oral construction contracts may be legally enforceable in South Carolina, but proving scope, price, and terms is extremely difficult without written documentation. The contractor's case must rely on circumstantial evidence such as witnesses, drawings, partial performance, change orders, and payment records to establish what was agreed. This high evidentiary burden is why written contracts are universally recommended on commercial work of any meaningful value.
 46. B — Bonding off transfers the lien from the property to the release bond as security, which clears the property's title for sale or refinancing. The underlying lien claim itself remains alive, however, and the subcontractor must still pursue enforcement against the bond within the statutory enforcement window or lose recovery rights. The bond simply substitutes itself for the real estate as the source of payment.
 47. D — Accrual basis accounting recognizes revenue when earned regardless of when cash is collected, while cash basis recognizes revenue only on receipt. The \$180,000 gap between accrual income (\$480,000) and cash income (\$300,000) indicates the firm has earned more than it has collected, primarily through unbilled work in progress, outstanding pay applications, or accounts receivable not yet paid. The pattern is normal for active construction firms and reflects timing differences in revenue recognition.
 48. C — An "or equal" specification obligates the architect to evaluate proposed substitutions for substantial equivalence against the named product, considering performance, dimensions, code compliance, warranty, and other relevant criteria. Arbitrary rejection without articulating how the proposed product fails the equivalence standard may breach the substitution-review obligation owed under the contract documents. The contractor's challenge is procedurally sound when the architect provides no substantive evaluation.
 49. B — A no-damage-for-delay clause typically limits the contractor's monetary recovery for project delays even when the delay is caused by the owner. Courts generally enforce these clauses, though many jurisdictions recognize exceptions for active interference, bad faith, fundamental breach, or unreasonably long delays not contemplated by the parties. The contractor may still recover time extensions under these clauses, just not money damages.

50. C — Surety bond cost typically runs 1 to 3 percent of contract value, varying with the contractor's financial strength, project size, type of work, and surety underwriting. On a \$3 million project, a 2 percent allowance equals \$60,000, which closely matches the actual \$55,000 cost within normal estimating tolerance. The estimate is reasonable and properly accounts for the bond expense in the bid price.