SIMULATION EXAM 6 — QUESTIONS 1–100

1. An integrator installing equipment in a return-air plenum discovers that the originally specified cable is not plenum-rated. The project schedule is tight. What is the most appropriate response?

A. Install the non-plenum cable and document the substitution for later correction

B. Stop the installation, obtain plenum-rated cable, and install the correct product

C. Install the cable in conduit to compensate for the lack of plenum rating

D. Install partial runs and complete the remainder with plenum cable when available

2. A CTS holder is asked to certify that an installed AV system complies with local electrical code. The CTS holder does not hold an electrical contractor's license. What is the most appropriate response?

A. Provide the certification based on general familiarity with code requirements

B. Provide the certification contingent on a client-signed waiver

C. Sub-contract with the equipment manufacturers for code compliance documentation

D. Decline and recommend a licensed electrical contractor perform the certification

3. The ANSI/AVIXA V202.01 standard establishes the 4H rule for which viewing category?

A. Analytical Decision-Making for detailed content analysis

B. Basic Decision-Making for general-purpose content

C. Passive Viewing for entertainment content

D. Casual Viewing for lobby and waiting-area displays

4. A client requests that the integrator install AV recording equipment in a healthcare facility where HIPAA-regulated information may be captured. What is the most important design consideration?

A. The recording bandwidth must match the facility's network capacity

B. The integrator should select the most expensive equipment to ensure quality

C. The system must implement appropriate safeguards for protected health information per HIPAA requirements

D. The system should use the same equipment as the integrator's other installations

5. A CTS holder is participating in a competitive bid process. The client's procurement officer offers confidential pricing from a competing bidder in exchange for a discount. The most appropriate response is:

A. Decline the offer and respond to the RFP based on the integrator's independent value proposition

B. Accept the information only if other bidders have a similar opportunity

C. Share the information with the integrator's sales manager for competitive analysis

D. Use the information to adjust the integrator's bid downward

6. An AV system in an educational institution must support participants with hearing impairments during large group sessions. Which requirement is most directly established by ADA and related accessibility standards?

A. Background music throughout the facility

B. Specific manufacturer-branded equipment for accessibility

C. Simultaneous language interpretation capability

D. Assistive listening systems covering the seated audience

7. A CTS holder discovers during a routine service visit that a competitor has previously installed AV equipment that violates manufacturer warranty conditions. The client is unaware. The most appropriate response is:

A. Report the competitor to the manufacturer for potential warranty revocation

B. Advise the client of the warranty implications and suggest appropriate remediation

C. Adjust the client's contract to account for the discovered issue

D. Remove the equipment and bill the client for corrective work

8. The ANSI/AVIXA A102.01 standard governs which aspect of audio system design?

A. Digital audio network interoperability between manufacturers

B. Microphone polar pattern specification

C. Audio coverage uniformity in listener areas

D. Loudspeaker output impedance standards

9. A client's IT security policy requires that all AV devices have unique, complex passwords and multi-factor authentication for administrative access. The integrator's deployed equipment does not natively support MFA. The most appropriate response is:

A. Continue using default credentials to maintain functionality

B. Implement a single shared password across all AV devices

C. Declare the policy impractical for AV equipment

D. Coordinate with IT to implement MFA where supported and identify compensating controls where not

10. A CTS holder is reviewing a proposed design for a legal proceeding recording system. The client has requested that the recording be permanently deleted once transcription is complete. The most appropriate response is:

A. Consult with the client's legal and compliance officers to establish retention requirements before agreeing to deletion

B. Delete the recordings immediately as requested

C. Retain the recordings indefinitely against the client's stated wishes

D. Transfer the recordings to consumer cloud storage for transcription

11. A fire-rated wall penetration for AV cables must be fire-stopped according to applicable code. This responsibility most directly belongs to:

A. The architect who designed the building

B. The cable manufacturer through jacket specifications

C. The trade that creates the penetration, using approved materials

D. The general contractor at the building's final inspection

12. A CTS holder notices that a colleague at the integrator firm has misrepresented their credentials to a client. The CTS Code of Ethics and Conduct requires:

A. Silence if the situation does not directly affect the CTS holder's projects

B. Addressing the misrepresentation through appropriate professional channels

C. Public disclosure on social media platforms

D. Legal action against the colleague through personal counsel

13. A projector has been installed in a house of worship. The AVIXA standard most directly addressing performance verification for houses of worship relates to:

A. Audio system broadcasting compliance

B. Universal projector brightness ratings

C. Network bandwidth for streaming

D. Specific performance verification requirements for that environment type

14. A CTS holder is reviewing a cable pathway design that specifies low-voltage control cables running parallel to a 120-volt branch circuit for 15 feet. The most appropriate response is:

A. Verify compliance with the separation distance required by the applicable electrical code

B. Proceed as designed regardless of the parallel run

C. Add shielding to the control cable and keep running parallel

D. Install the control cable in conduit and proceed

15. A client's facility has European users. The integrator is installing AV equipment with data processing capabilities. Which regulation most directly governs the handling of personal data for European users?

A. Health Insurance Portability and Accountability Act (HIPAA)

B. Sarbanes-Oxley Act

C. General Data Protection Regulation (GDPR)

D. Federal Information Security Management Act

16. A CTS holder is asked by a client to install a hidden recording device in a workplace to monitor employee conversations without notice. What does the CTS Code of Ethics and Conduct require?

A. Install the device as requested since the client directs the project

B. Decline the request based on legal and ethical concerns with covert monitoring

C. Install the device only in common areas, not private spaces

D. Install the device with a time-based shutoff to limit exposure

17. A CTS holder is reviewing a proposed signal flow for a courtroom. The design requires redundancy for court reporter audio. The most appropriate design approach is:

A. A single audio path with periodic maintenance

B. Two parallel audio paths using identical hardware with no independent operation

C. A backup handwritten note-taking system only

D. Redundant audio paths with independent signal processing and amplifier capabilities

18. A CTS holder is asked by the client to sign a change order that reduces a documented safety provision to lower project cost. The most appropriate response is:

A. Decline to sign and explain why safety provisions cannot be compromised

B. Sign with documented client acknowledgment of the safety reduction

C. Sign only if the client waives the integrator's liability

D. Sign and document the reduction in the project archive

19. A client's IT team has requested that all AV devices be segmented onto a dedicated VLAN. The primary reason this matters for AV performance and security is:

A. VLAN segmentation reduces manufacturer licensing costs

B. VLAN segmentation replaces the need for Quality of Service

C. VLAN segmentation isolates AV traffic from general enterprise traffic for both performance and security

D. VLAN segmentation enables unlimited bandwidth for AV devices

20. An AV installation is being performed in an active healthcare facility. The most important specialized safety consideration is:

A. Limiting the installation to hours with lowest patient traffic

B. Following the facility's infection control protocols and patient privacy procedures

C. Using specialty fasteners rated for healthcare environments

D. Requiring non-union labor on the installation

21. The AVIXA standard addressing the content and structure of program reports is most directly:

A. Concerned with the technical audio performance of DSP equipment

B. Focused on loudspeaker placement in conference rooms

C. Applicable to projector lamp lifecycle management

D. Focused on a consistent deliverable format across integrators and projects

22. A CTS holder is asked to review AV equipment from a competitor for a prospective client. The competitor's proposal is confidential. The most appropriate response is:

A. Decline and recommend the client evaluate the proposal independently

B. Review the proposal and provide an informal competitive analysis

C. Review but not share specific details with the client

D. Share the review with the integrator's manufacturer partners

23. A CTS holder is documenting a preventive maintenance program for an AV installation in a financial services firm. Regulatory requirements in this industry may include:

A. Frequency standards for microphone sensitivity testing

B. Display resolution specifications per vendor

C. Documentation of audio recording for audit trails and compliance records

D. Mandatory use of single-vendor AV equipment

24. A CTS holder is working on an installation where existing cable pathways contain older cables that appear to be damaged or improperly installed. The most appropriate response is:

A. Remove the old cables immediately without client notification

B. Document the finding and recommend to the client a remediation plan addressing the older cables

C. Install new cables alongside the damaged ones without addressing the damage

D. Take photographs for personal records but not inform the client

25. A CTS holder is reviewing a video wall installation where the ceiling above the video wall contains a fire sprinkler. The most important response is:

A. Coordinate with the fire protection engineer to ensure the display does not interfere with sprinkler coverage

B. Install the display without coordination because it is below the sprinkler

C. Remove the sprinkler to avoid interference

D. Install the display and raise the sprinkler without coordination

26. A client has requested that a conference room AV system be upgraded to support 4K video content. The existing HDCP 1.4 equipment cannot support the HDCP 2.2 required for most 4K protected content. The most appropriate response is:

A. Continue using HDCP 1.4 equipment with older content only

B. Bypass HDCP authentication

C. Upgrade the HDCP-relevant equipment to support HDCP 2.2 for 4K content

D. Use unprotected content only to avoid HDCP issues

27. A CTS holder is training a junior technician. The junior tech asks whether minor shortcuts during cable installation are acceptable if the client will never know. The most appropriate response is:

A. Quality standards are not optional and are independent of whether the client can detect them

B. Some shortcuts are acceptable if they do not affect function

C. Shortcuts should be judged by the client's knowledge of them

D. The firm's quality standards apply only to visible work

28. The ANSI/AVIXA rack building practices standard addresses which of the following?

A. Specific manufacturer preferences for equipment racks

B. Legal requirements for rack installation in different jurisdictions

C. Financial accounting practices for AV integrators

D. Quantitative and procedural targets for professional rack fabrication work

29. A CTS holder is reviewing a control system program that contains client credentials stored in plaintext within the code. The most appropriate response is:

A. Leave the credentials in place because they are internal to the code

B. Remove the credentials, replace with secure credential storage mechanisms, and advise the client

C. Share the credentials with the client's IT team via unencrypted email

D. Document the credentials in the as-built drawings for future reference

30. An AV installation in a courthouse must preserve accessibility for users in wheelchairs. ADA specifically addresses which of the following aspects of AV design?

A. Specific audio DSP feature requirements

B. Specific lighting fixture selection

C. Reach range and mounting height of interactive elements such as touch panels

D. Specific microphone frequency response ranges

31. A CTS holder is responding to a service call where the client's recording system has been configured to capture audio without participant notification. The Code of Ethics and applicable privacy law indicate:

A. The recording practice requires review and potentially modification to comply with notification requirements

B. Audio-only recording is exempt from privacy concerns

C. Recording is permissible if only the client's authorized users access it

D. Privacy concerns do not apply because the recording is for internal use

32. A network switch in a new installation must support AV-over-IP with multicast distribution. The most important network feature to verify is:

A. Wireless mesh networking compatibility

B. Total backplane capacity in the 100 Gbps range

C. Support for fiber-optic direct connections only

D. IGMP snooping and appropriate Quality of Service configuration

33. A CTS holder is reviewing a proposal for a new installation. The proposal includes a safety-critical function that the equipment manufacturer has not certified for that specific use case. The most appropriate response is:

A. Proceed with the installation and rely on client acceptance

B. Coordinate with the manufacturer to verify suitability for the specific use case

C. Substitute different equipment without consulting the manufacturer

D. Proceed and add a safety disclaimer to the client documentation

34. A CTS holder is preparing a handoff package for a conference room installation. The package should most appropriately include:

A. As-built drawings, operational documentation, training materials, and verification test results

B. Only the original design drawings without as-built updates

C. The integrator's internal cost accounting details

D. Marketing materials about the integrator's other projects

35. A cable pathway design specifies Cat6A cable in an environment with high electromagnetic interference from adjacent industrial equipment. The most important consideration is:

A. The cable's color coding for identification

B. The cable's flexibility for installation

C. The cable's shielding and routing to minimize EMI susceptibility

D. The cable's marketing tier (consumer vs. professional)

36. A CTS holder is asked to conduct a training session for end users. The client has asked about the session's focus. The most appropriate approach is:

A. Technical deep-dive of DSP configuration for general users

B. Focus on common use scenarios with practical demonstrations and brief reference materials

C. Mandatory certification testing before users can access the room

D. Written documentation only without live session

37. A client is considering discontinuing manufacturer support on specific AV equipment. The manufacturer has announced end-of-support in twelve months. The most appropriate response is:

A. Continue using the equipment indefinitely and respond reactively

B. Remove the equipment immediately at the integrator's cost

C. Seek third-party support extensions indefinitely

D. Develop a replacement plan with the client, including transition timeline, budget, and equipment selection

38. An AV system in a secure facility requires specific compliance with federal cybersecurity standards. The most appropriate approach is:

A. Perform internal compliance testing without specialist involvement

B. Rely on manufacturer claims of compliance without verification

C. Coordinate with qualified cybersecurity specialists for formal verification

D. Declare compliance based on general industry practice

39. A CTS holder is asked by a client whether the AV system complies with the Americans with Disabilities Act. The most appropriate response is:

A. Provide a direct assurance of compliance based on general knowledge

B. Engage legal or compliance counsel to confirm ADA requirements for the specific installation

C. Decline the question entirely because ADA is not the integrator's concern

D. Claim compliance based on manufacturer documentation alone

40. An ANSI-accredited standards development process is characterized by:

A. Open, consensus-driven development with balanced stakeholder representation

B. Proprietary development by individual manufacturers

C. Government-mandated content with no industry input

D. Closed meetings of a single AV industry group

41. A client has requested that the integrator access AV equipment remotely for ongoing maintenance. The client's IT security policy requires VPN access with multi-factor authentication. The most appropriate response is:

A. Use a consumer remote-access tool that bypasses IT security

B. Install remote access using any method that functions

C. Refuse remote access entirely to avoid complexity

D. Implement remote access using the client's approved VPN and MFA methods

42. A CTS holder is reviewing a cable labeling scheme. The most appropriate professional practice is:

A. Labels on the source end only with visual color coding elsewhere

B. Handwritten labels on both ends

C. Machine-printed consistent labels at both ends, cross-referenced to documentation

D. No labels since cables are identified by pathway

43. A CTS holder is asked to review a proposal that includes AV equipment from a manufacturer that is no longer in active business. The most appropriate response is:

A. Investigate the manufacturer's lifecycle status and advise the client accordingly

B. Proceed because the equipment appears suitable

C. Substitute any alternative manufacturer without verification

D. Accept the manufacturer's discontinuation status without comment

44. A CTS holder is responding to a service issue where a specific cable run has been installed in a way that violates the cable's specified bend radius. The most appropriate response is:

A. Accept the installation if the symptoms are minor

B. Remediate the installation to comply with the cable specification and verify signal integrity

C. Replace only the specific cable with a different type

D. Ignore the bend radius concern since the cable is working

45. An AV system in a financial institution must document all user actions for audit trails. Which system characteristic is most directly required?

A. Higher-resolution displays

B. Specific loudspeaker manufacturers

C. Unlimited bandwidth

D. Audit logging of administrative actions with appropriate retention

46. A CTS holder is reviewing a proposal that specifies a specific make and model of loudspeaker. The client has asked whether alternative models could be substituted. The most appropriate response is:

A. Evaluate the alternatives against the acoustic requirements and provide an informed recommendation

B. Reject all alternatives to protect the original specification

C. Substitute whichever alternative has lowest cost

D. Leave the substitution decision entirely to the client

47. A CTS holder is asked to review a change order that adds recording capability to an existing system. The recorded content may contain personally identifiable information. The most appropriate response is:

A. Add the capability without privacy considerations

B. Limit the recording to audio only

C. Engage legal and compliance teams to establish appropriate retention and access controls

D. Charge additional fees for the recording feature

48. A client has requested integration with a third-party application whose API is documented and publicly available. The most appropriate approach is:

A. Request additional integration consulting fees before proceeding

B. Develop the integration using the published API according to standard practice

C. Decline because third-party integrations are risky

D. Use undocumented methods to bypass the API

49. A CTS holder is reviewing a rack elevation. The proposed layout places a DSP above a 300-watt amplifier. The most important concern is:

A. Installation cost for the configuration

B. Aesthetic consistency across rack layouts

C. Access for future service

D. Heat from the amplifier rising into the DSP's intake airflow

50. A CTS holder has been asked to install AV equipment in a building that is currently undergoing renovation. The general contractor has not completed drywall at the equipment locations. The most appropriate response is:

A. Coordinate with the general contractor to align schedules and complete site readiness before installation

B. Install equipment using temporary mounting and complete later

C. Refuse to install until the general contractor completes

D. Install only in completed areas and defer the rest

51. A CTS holder is reviewing a proposed audio system for speech intelligibility. The AVIXA A102.01 standard addresses which specific requirement?

A. Loudspeaker frequency response tolerance

B. Microphone polar pattern specifications

C. Audio amplifier specifications

D. Coverage uniformity across the listener area

52. A CTS holder is asked to verify that an installation complies with specific federal cybersecurity standards. The CTS holder does not hold cybersecurity credentials. The most appropriate response is:

A. Coordinate with qualified cybersecurity specialists for the formal verification

B. Provide general verification based on industry familiarity

C. Decline the verification entirely

D. Use the manufacturer's compliance statements as documentation

53. A CTS holder is reviewing a proposed design for a classroom. The client has indicated that the design must support hearing-impaired students. The most appropriate design element is:

A. Higher-powered loudspeakers throughout

B. Personal headphones for each student

C. Assistive listening systems covering the seating area, per ADA and applicable standards

D. Increased microphone gain

54. A CTS holder has been asked to evaluate whether an AV system installed at a client site is appropriate for its intended use. The system was originally designed for a different use case. The most appropriate response is:

A. Accept the original configuration as adequate for the new use

B. Evaluate the new use case against the system design and identify any gaps or required modifications

C. Replace the entire system regardless of the new use case

D. Refuse to assess the system

55. A CTS holder is reviewing a proposed cable pathway that routes signal cables through a fire-rated wall. The most important consideration is:

A. The pathway's length

B. The cable's flexibility in the pathway

C. The pathway's appearance from outside

D. Code-compliant fire-stopping of the penetration

56. A CTS holder is asked by a manufacturer to endorse their product in exchange for compensation. The CTS holder has not personally tested the product. The most appropriate response is:

A. Accept the endorsement and compensation

B. Endorse based on the manufacturer's claims

C. Decline the endorsement because the CTS holder cannot honestly represent the product

D. Accept the compensation privately

57. A CTS holder is reviewing a proposed installation where sensitive conversations will be captured. The client has specified that audio recording must include appropriate data protection. The most appropriate response is:

A. Include encryption, access controls, and appropriate retention policies in the design

B. Use unprotected audio recording for simplicity

C. Decline to address data protection for audio

D. Charge additional fees for basic data protection

58. A CTS holder is asked to review a building automation integration with the AV system. The building automation system uses a proprietary API. The most appropriate response is:

A. Reject the integration because of the proprietary API

B. Coordinate with the building automation vendor to obtain API documentation and integration support

C. Reverse-engineer the API without vendor cooperation

D. Integrate through manual workarounds to bypass the API

59. The CTS Code of Ethics and Conduct principle regarding client confidentiality most directly requires:

A. Public disclosure of all client information

B. Destruction of all client documentation after project closeout

C. Sharing of client information with manufacturers for warranty purposes

D. Protection of sensitive client information encountered during professional work

60. A CTS holder is reviewing an existing installation at a site that was renovated since the original design. The site conditions have changed significantly. The most appropriate response is:

A. Perform a site survey and recommission the AV system for the updated conditions

B. Use the original design as the basis for ongoing service

C. Replace all equipment immediately

D. Refuse to service the existing installation

61. A CTS holder is reviewing an installation where the HVAC system has been modified since initial commissioning. The AV system's noise floor has increased. The most appropriate response is:

A. Increase the AV system's volume to compensate

B. Replace the HVAC system

C. Ignore the noise floor change

D. Investigate the HVAC changes and coordinate remediation with the facility engineer

62. A CTS holder is reviewing a proposed conference room where the ceiling has decorative coffering. The client has specified a ceiling microphone array. The most appropriate response is:

A. Install as specified regardless of ceiling condition

B. Coordinate with the client and architect to identify an alternate mounting location suitable for the microphone array

C. Raise the microphone above the coffering

D. Replace the microphone with handheld alternatives

63. A CTS holder is reviewing the AV system's compliance with a client's organizational security policy that requires quarterly firmware updates. The fleet of 50 devices cannot practically be updated quarterly without operational disruption. The most appropriate response is:

A. Apply updates as required regardless of disruption

B. Ignore the policy

C. Declare the policy impractical

D. Coordinate with the security team to develop a practical update schedule that balances security with operations

64. A CTS holder is advising a client on an AV system upgrade. The client has asked whether the existing equipment can be extended or must be fully replaced. The most appropriate response is:

A. Evaluate each component's condition, service life, manufacturer support status, and serviceability before recommending an upgrade path

B. Replace the entire system regardless of component condition

C. Continue using the existing equipment without upgrade

D. Upgrade only the components specified by the manufacturer

65. A CTS holder is reviewing a competitor's installation. The competitor has used equipment not suitable for the client's stated use case. The most appropriate response is:

A. Report the competitor to the manufacturer

B. Contact the competitor directly to challenge the specification

C. Advise the client of the suitability concern and recommend professional consultation

D. Replace the equipment at the integrator's expense

66. A CTS holder is managing a project where the client has requested a feature that is beyond the original scope. The client has not signed a change order. The most appropriate response is:

A. Proceed with the additional work

B. Pause the additional work until the change order is approved

C. Refuse the additional work categorically

D. Absorb the cost as a project courtesy

67. A CTS holder is reviewing an AV installation in an industrial facility. The facility's operating noise is significantly above normal conference room levels. The most appropriate response is:

A. Select equipment and design the system to function in the industrial environment

B. Specify standard conference room equipment and rely on users adapting

C. Reduce the equipment count to lower total cost

D. Install outdoor-rated equipment regardless of indoor placement

68. A CTS holder is reviewing an installation where the existing network switch has minimal capacity. The new AV-over-IP system requires significant bandwidth. The most appropriate response is:

A. Coordinate with IT to upgrade the network infrastructure

B. Reduce the AV-over-IP resolution to fit within existing bandwidth

C. Install a parallel network without coordinating with IT

D. Proceed with existing switch and accept performance degradation

69. A CTS holder is preparing a final project walkthrough with a client. The walkthrough should most appropriately include:

A. A presentation of marketing materials

B. Internal financial reconciliation

C. A formal demonstration of each functional requirement against the verification plan

D. Discussion of other projects the integrator is pursuing

70. A CTS holder is responding to a service call where the conferencing system has been experiencing intermittent dropouts correlated with network activity. The most appropriate first diagnostic step is:

A. Replace the conferencing hardware

B. Replace the display

C. Review the network traffic patterns and QoS configuration

D. Replace the cabling throughout the room

71. A CTS holder is asked to install an AV system in an area that has been identified as containing asbestos. The most appropriate response is:

A. Proceed with the installation using standard precautions

B. Contact the client's environmental team to assess proper remediation before installation

C. Skip installation in the affected area and complete elsewhere

D. Use a respirator and proceed

72. A CTS holder is reviewing a proposal for an interactive touch panel that will be used by users with varying physical abilities. The most important design consideration is:

A. Mounting height and reach range compliance with ADA requirements

B. The manufacturer's certification of the touch panel

C. The bandwidth of the touch panel's network connection

D. The aesthetic design of the touch panel enclosure

73. A CTS holder has been asked to review an existing AV installation for regulatory compliance. The installation captures video in a healthcare facility. The most appropriate approach is:

A. Declare compliance based on manufacturer documentation

B. Perform internal compliance review without healthcare specialist input

C. Engage healthcare compliance specialists to review against HIPAA and facility-specific regulations

D. Ignore regulatory concerns if the system functions

74. A CTS holder is reviewing an installation where signal cables have been routed directly adjacent to a 480V feeder for over 100 feet. The most appropriate response is:

A. Accept the existing installation

B. Redesign the pathway to provide code-compliant separation between power and signal

C. Add shielding to the signal cables

D. Replace the signal cables with a different type

75. A CTS holder is reviewing an installation at a federal facility. The client's cybersecurity team has identified specific security standards the installation must meet. The most appropriate response is:

A. Accept the client's general security direction without specifics

B. Apply industry-standard security practices without formal verification

C. Require the client to certify compliance themselves

D. Coordinate with qualified cybersecurity specialists to verify compliance with the specified standards

76. A CTS holder is asked to modify a control system program that was developed by an employee who has since left the firm. The original source code is available. The most appropriate response is:

A. Review the existing code, understand the original logic, make targeted modifications, and document changes in the project archive

B. Rewrite the program from scratch

C. Make changes without reviewing the original logic

D. Refuse to modify the code

77. A CTS holder is reviewing a proposal for an AV system that will be deployed across multiple offices in different countries. The most important consideration regarding regulatory compliance is:

A. Uniform design across all locations regardless of local regulations

B. Single-manufacturer equipment to simplify procurement

C. Review of applicable regulations in each jurisdiction before finalizing design

D. Rely on the manufacturer's claims of global compliance

78. A CTS holder is reviewing a scope of work for a client. The scope includes explicit exclusions that the client has objected to as "too detailed." The most appropriate response is:

A. Remove the exclusions to accommodate the client

B. Explain that explicit exclusions prevent disputes and retain them in the scope

C. Generalize exclusions to a single blanket statement

D. Move exclusions to an unsigned appendix

79. A CTS holder is reviewing an AV system for a facility with specific disaster recovery requirements. The most important design consideration is:

A. Using the lowest-cost equipment to reduce recovery expenses

B. Ignoring disaster recovery since it is the facility's responsibility

C. Using a single manufacturer for all equipment

D. Designing for appropriate redundancy and backup procedures aligned with the client's disaster recovery requirements

80. A CTS holder is asked by a client to certify that an AV system complies with building codes. The CTS holder does not hold the relevant contractor's license. The most appropriate response is:

A. Decline and recommend a licensed professional perform the certification

B. Provide the certification based on general familiarity

C. Provide the certification with a client-signed waiver

D. Refer to equipment manufacturers for code compliance documentation

81. A CTS holder is reviewing a proposed installation where the client has requested that certain equipment be wall-mounted but the manufacturer specifies ceiling mounting only. The most appropriate response is:

A. Install the equipment as the client requested regardless of specification

B. Follow the manufacturer's specification or coordinate for alternatives within specification

C. Choose a cheaper alternative and proceed

D. Install the equipment at an angle to satisfy both requirements

82. A CTS holder is reviewing the network security of an AV installation. The installation has AV devices connected to the internet with default manufacturer passwords. The most important response is:

A. Accept default credentials since the devices are behind a firewall

B. Change passwords only for devices with public IP addresses

C. Rely on network segmentation as the sole security measure

D. Change all default passwords to strong, unique credentials as a baseline security practice

83. A CTS holder is reviewing an AV installation where a cable has been damaged by a renovation subcontractor. The most appropriate response is:

A. Document the damage, coordinate with the client for repair, and establish appropriate cost allocation

B. Repair the cable at the integrator's cost without documentation

C. Refuse to address the damage

D. Claim the damage pre-existed

84. The CTS Code of Ethics and Conduct principle regarding conflicts of interest most directly requires:

A. Specific manufacturer relationships for all CTS holders

B. Reporting of all financial decisions to AVIXA

C. Disclosure of conflicts of interest to affected parties

D. Limitation of projects to specific regions only

85. A CTS holder is reviewing a proposed AV system integration with a client's human resources system. The integration will access employee records. The most appropriate response is:

A. Access employee records without restriction

B. Coordinate with the client's HR and compliance teams to establish appropriate access controls

C. Use unencrypted connections for the integration

D. Proceed without notifying the client's HR department

86. A CTS holder is advising a client on AV system upgrade priorities. The client's current system has multiple end-of-support components and degraded performance. The most appropriate response is:

A. Recommend immediate replacement of the entire system

B. Continue operating the current system indefinitely

C. Prioritize based solely on manufacturer marketing

D. Develop a phased upgrade plan that prioritizes end-of-support components and addresses performance gaps systematically

87. A CTS holder is reviewing a proposed cable pathway that passes through a sound-sensitive area. The most important consideration is:

A. Route the cables to avoid transmitting vibration or acoustic intrusion into the sensitive area

B. Use the shortest pathway regardless of acoustic impact

C. Share the pathway with other trades for efficiency

D. Use consumer-grade cables to reduce material cost

88. A CTS holder is reviewing an installation where the existing audio amplifier has failed. The amplifier is 8 years old. The replacement cost is $4,000 and repair is $1,800. The most appropriate response is:

A. Repair immediately regardless of circumstance

B. Replace immediately regardless of cost

C. Evaluate remaining useful life, support status, and system compatibility before recommending repair or replacement

D. Defer the decision indefinitely

89. A CTS holder is reviewing an AV installation at a government agency. The agency's security team has identified specific cybersecurity requirements. The most appropriate response is:

A. Apply general industry security practices

B. Engage qualified cybersecurity specialists to confirm compliance with the specific requirements

C. Rely on equipment manufacturer compliance claims

D. Declare compliance based on familiarity with the requirements

90. A CTS holder is reviewing a conference room that has been designed for 8 participants. The client has indicated that up to 15 participants will routinely use the room. The most appropriate response is:

A. Ignore the capacity difference

B. Adjust the equipment to compensate at no cost

C. Replace the entire system

D. Document the capacity mismatch and propose formal capacity changes through the change-order process

91. A CTS holder is reviewing an AV installation where the wireless microphones experience interference during a major event. Investigation reveals that other wireless systems in the area operate on the same frequencies. The most appropriate response is:

A. Coordinate with other wireless system operators in the area to deconflict frequencies

B. Coordinate frequency assignments with the affected stakeholders

C. Replace the wireless microphones with wired models

D. Accept the interference as unavoidable

92. A CTS holder is preparing an as-built drawing package for a new installation. Minor field changes were made during installation that differ from the original design. The most appropriate response is:

A. Leave the drawings as originally designed

B. Note the changes verbally without updating drawings

C. Update the as-built drawings to accurately reflect the installed configuration

D. Update the drawings but exclude them from the client's handoff package

93. A CTS holder is reviewing the signal flow for a conferencing system. The design includes acoustic echo cancellation. The AEC reference signal should be:

A. The microphone pickup in the local room

B. The audio signal being sent to the local loudspeakers

C. The audio signal being transmitted to the far end

D. The aggregate DSP matrix output

94. A CTS holder is asked to evaluate an AV system's readiness for handoff. Testing reveals that one functional requirement fails consistently. The most appropriate response is:

A. Declare the project complete based on passing requirements

B. Proceed with acceptance and address the failure post-handoff

C. Blame the verification plan as too strict

D. Document the failure, investigate root cause, remediate, and retest before acceptance

95. A CTS holder is reviewing an installation where the DSP configuration has not been backed up. The installation has been in service for two years. The most appropriate response is:

A. Proceed with ongoing service and address backup later

B. Rely on the DSP's local backup exclusively

C. Establish a centralized backup protocol for DSP configurations and implement it as part of the ongoing support

D. Replace the DSP with one that has automatic backup

96. A CTS holder is reviewing a proposed audio system design for speech intelligibility. The AVIXA standard most directly applicable is:

A. ANSI/AVIXA A102.01 for audio coverage uniformity

B. ANSI/AVIXA V202.01 for display image size

C. ANSI/AVIXA rack building standard

D. ANSI/AVIXA program report standard

97. A CTS holder is reviewing an AV installation where a power amplifier has been installed at the top of the rack. The most important concern is:

A. The amplifier's purchase cost

B. Heat from the amplifier rising into other equipment's intake and the rack's center of gravity

C. The amplifier's color coordination with other equipment

D. Access for future service

98. A CTS holder is reviewing an AV installation where the conferencing codec cannot register with the cloud service. Ping to the service succeeds. The most likely cause is:

A. The codec hardware has failed

B. The display connected to the codec is incompatible

C. The HDMI cable between codec and display has failed

D. A firewall or network policy is blocking specific ports required for the conferencing service

99. A CTS holder is reviewing a proposal for a new installation. The proposal includes a feature that is marketed but not actually supported on the specified hardware. The most appropriate response is:

A. Proceed as proposed and discover limitations post-installation

B. Substitute alternative equipment without consulting the client

C. Coordinate with the manufacturer and update the specification to use hardware that actually supports the feature

D. Remove the feature from scope without client discussion

100. A CTS holder is reviewing an AV installation's ongoing maintenance plan. The plan specifies uniform maintenance frequency across rooms of varying criticality. The most appropriate response is:

A. Proceed with uniform maintenance regardless of room importance

B. Outsource all maintenance to the manufacturers

C. Differentiate maintenance cadence by room criticality, with more frequent visits to higher-stakes rooms

D. Perform maintenance only when users submit complaints

SIMULATION EXAM 6 — ANSWER KEY AND FULL EXPLANATIONS

1. B — Stop the installation, obtain plenum-rated cable, and install the correct product. Plenum-rated cable is a fire code requirement for return-air plenum spaces, not an optional specification. Non-plenum cable in a plenum space violates code regardless of schedule pressure; conduit protection is not a universal substitute. The professional response obtains the correct product.

2. D — Decline and recommend a licensed electrical contractor perform the certification. Electrical code compliance certification falls within the licensed electrical contractor's scope. A CTS holder providing such certification outside their licensure creates legal liability and violates the honest-representation principle of the Code of Ethics.

3. A — Analytical Decision-Making for detailed content analysis. The 4H rule (image height × 4 = maximum viewer distance) applies to ADM tasks requiring detail resolution — engineering review, medical imaging, spreadsheet analysis. The 6H rule applies to Basic Decision-Making for general content viewing.

4. C — The system must implement appropriate safeguards for protected health information per HIPAA requirements. HIPAA governs PHI capture, storage, and transmission in healthcare settings, requiring specific technical safeguards including encryption, access controls, and audit logging. Equipment cost and manufacturer selection are secondary to compliance.

5. A — Decline the offer and respond to the RFP based on the integrator's independent value proposition. Accepting confidential competitor pricing violates the Code of Ethics integrity principle and compromises the competitive process. The response based on independent value maintains professional integrity.

6. D — Assistive listening systems covering the seated audience. ADA specifically requires assistive listening systems in spaces serving public audiences at certain occupancy thresholds. Louder background music, specific manufacturers, or interpretation capability are not the ADA assistive-listening requirement.

7. B — Advise the client of the warranty implications and suggest appropriate remediation. Discovering a warranty-affecting installation issue from a competitor creates a professional obligation to advise the client of the implication. Reporting the competitor, adjusting contracts, or performing unrequested remediation all fail the primary professional duty.

8. C — Audio coverage uniformity in listener areas. A102.01 specifically addresses the permissible SPL variation across a listener area and the measurement methodology used to verify compliance. Network interoperability, polar patterns, and impedance standards are different scopes.

9. D — Coordinate with IT to implement MFA where supported and identify compensating controls where not. Enterprise security policies must be honored within practical limits. Default credentials, shared passwords, or declaring policies impractical all violate the security principle. Coordination with IT identifies the path that meets security objectives as completely as possible.

10. A — Consult with the client's legal and compliance officers to establish retention requirements before agreeing to deletion. Recording deletion may have legal retention implications — litigation holds, regulatory requirements, chain-of-custody concerns. The integrator should not unilaterally delete content; legal and compliance authorization protects both parties.

11. C — The trade that creates the penetration, using approved materials. Fire-stopping responsibility follows the trade that creates the penetration. The architect designs but does not perform; manufacturers do not fire-stop penetrations; and the general contractor coordinates but does not perform the trade work.

12. B — Addressing the misrepresentation through appropriate professional channels. The Code of Ethics requires constructive action when misconduct is observed — direct conversation, organizational reporting, or professional body reporting as severity warrants. Silence, social media disclosure, or personal legal action are not the Code's requirements.

13. D — Specific performance verification requirements for that environment type. AVIXA publishes standards specifically for specialized environments including houses of worship, addressing performance verification particular to the space type. Universal brightness ratings, network bandwidth, and broadcasting compliance are different topics.

14. A — Verify compliance with the separation distance required by the applicable electrical code. Parallel runs of signal and power cables are subject to separation requirements in the electrical code. The professional response references the applicable code standard for verification, not a reactive substitution.

15. C — General Data Protection Regulation (GDPR). GDPR governs personal data handling for individuals in the European Union, with specific requirements for consent, data minimization, retention, and rights. HIPAA addresses US healthcare; SOX addresses financial reporting; FISMA addresses federal IT systems.

16. B — Decline the request based on legal and ethical concerns with covert monitoring. Covert monitoring without worker notification raises serious legal issues in most jurisdictions (privacy, labor laws, wiretapping statutes). The Code of Ethics and applicable law prohibit such installations regardless of client justification.

17. D — Redundant audio paths with independent signal processing and amplifier capabilities. Courtrooms have high-stakes recording requirements where failure has legal consequences. Proper redundancy includes independent signal paths (not identical hardware in parallel), independent processing, and separate amplifier capability so a single failure does not compromise the audio record.

18. A — Decline to sign and explain why safety provisions cannot be compromised. Safety provisions are not negotiable and cannot be signed away by client acceptance or liability waiver. The Code of Ethics places public safety among its foundational principles.

19. C — VLAN segmentation isolates AV traffic from general enterprise traffic for both performance and security. VLANs provide logical segmentation that both protects AV performance from general enterprise traffic contention and isolates AV devices from security risks on other parts of the network. Licensing costs, QoS elimination, and unlimited bandwidth are not VLAN purposes.

20. B — Following the facility's infection control protocols and patient privacy procedures. Healthcare facilities have specific protocols for infection control, patient privacy, and equipment handling that apply to all personnel, including AV installers. Hours restriction, specialty fasteners, and labor composition are secondary to compliance with facility-specific procedures.

21. D — Focused on a consistent deliverable format across integrators and projects. The program report standard defines the structure and content of program reports so that these deliverables are comparable across integrators and projects. Technical audio performance, loudspeaker placement, and projector lifecycle are different scopes.

22. A — Decline and recommend the client evaluate the proposal independently. Reviewing a competitor's confidential proposal violates the Code of Ethics and compromises the competitive process. Informal reviews, partial sharing, or sharing with manufacturer partners all violate competitive-process integrity.

23. C — Documentation of audio recording for audit trails and compliance records. Financial services regulations often require specific audit trails and compliance documentation of communications. Frequency testing, resolution specifications, and single-vendor equipment are not typical regulatory requirements.

24. B — Document the finding and recommend to the client a remediation plan addressing the older cables. Existing damaged or improperly installed cables are findings that deserve client notification and remediation planning. Silent removal, paralleling damaged cables, or personal documentation without disclosure all fail the professional duty.

25. A — Coordinate with the fire protection engineer to ensure the display does not interfere with sprinkler coverage. Sprinkler coverage is a life-safety issue that must be resolved through qualified engineering consultation. Installation without coordination, raising the sprinkler, or removing it without authorization all create safety and code exposure.

26. C — Upgrade the HDCP-relevant equipment to support HDCP 2.2 for 4K content. Modern 4K protected content requires HDCP 2.2 end-to-end. Equipment that does not support it must be upgraded, not bypassed or worked around with content limitations.

27. A — Quality standards are not optional and are independent of whether the client can detect them. Professional quality standards reflect the integrator's internal commitment to doing work correctly, regardless of client visibility. Shortcuts create latent problems that emerge later and damage the integrator's reputation and the client's operation.

28. D — Quantitative and procedural targets for professional rack fabrication work. The rack building practices standard establishes how rack work should be done — cable management, blanking panels, grounding, airflow — providing targets for professional practice. Manufacturer preferences, legal requirements, and financial practices are different scopes.

29. B — Remove the credentials, replace with secure credential storage mechanisms, and advise the client. Hard-coded plaintext credentials are a serious security vulnerability that must be remediated. Leaving the credentials, sharing them insecurely, or documenting them in drawings all compound the exposure.

30. C — Reach range and mounting height of interactive elements such as touch panels. ADA specifies reach range limits and mounting heights to ensure interactive elements are accessible to users in wheelchairs and with other physical limitations. DSP features, lighting selection, and microphone frequency are not ADA accessibility requirements.

31. A — The recording practice requires review and potentially modification to comply with notification requirements. Audio recording without participant notification raises privacy and legal concerns in most jurisdictions. The professional response investigates compliance requirements and proposes appropriate remediation.

32. D — IGMP snooping and appropriate Quality of Service configuration. For AV-over-IP with multicast, IGMP snooping prevents multicast flooding, and QoS ensures AV traffic receives priority — both essential for reliable operation. Wireless mesh, specific backplane capacity, and fiber-direct connections are not the primary requirements.

33. B — Coordinate with the manufacturer to verify suitability for the specific use case. Use-case-specific certifications are not optional when the equipment is used outside its certified scope. Manufacturer coordination is the professional practice; proceeding without verification or adding disclaimers after the fact all fail to address the liability.

34. A — As-built drawings, operational documentation, training materials, and verification test results. A complete handoff package contains the documentation the client needs for ongoing operation, maintenance, and future reference. Original drawings alone, financial data, or marketing materials do not meet the client's operational need.

35. C — The cable's shielding and routing to minimize EMI susceptibility. In high-EMI environments, cable selection and routing must minimize interference susceptibility through appropriate shielding and pathway design. Color coding, flexibility, and marketing tier are not EMI-related considerations.

36. B — Focus on common use scenarios with practical demonstrations and brief reference materials. End-user training must match the audience — practical, usable knowledge with reference for exceptions. Technical deep-dives, certification requirements, and written-only documentation all misfit the typical end-user need.

37. D — Develop a replacement plan with the client, including transition timeline, budget, and equipment selection. Manufacturer end-of-support announcements are predictable events requiring proactive planning. Indefinite continuation, immediate removal without transition, or third-party extensions all fail to serve the client's actual operational needs.

38. C — Coordinate with qualified cybersecurity specialists for formal verification. Federal cybersecurity compliance requires qualified specialists, not general-knowledge assertions. Internal testing without specialist input, manufacturer claims alone, or general industry practice all fail to deliver verified compliance.

39. B — Engage legal or compliance counsel to confirm ADA requirements for the specific installation. ADA compliance is a legal determination requiring qualified counsel, not a CTS holder's general assurance. Dismissing ADA, relying on manufacturer documentation alone, or providing direct assurances all misrepresent the professional role.

40. A — Open, consensus-driven development with balanced stakeholder representation. ANSI accreditation validates that standards are developed through open, balanced, consensus-based processes — not proprietary, government-mandated, or single-group development. This transparency gives ANSI-accredited standards their weight.

41. D — Implement remote access using the client's approved VPN and MFA methods. Remote access must operate within the client's security framework. Consumer tools bypassing IT security, any-method implementation, or categorical refusal all fail to meet one or both requirements.

42. C — Machine-printed consistent labels at both ends, cross-referenced to documentation. Professional labeling requires durability, consistency, both-end identification, and cross-reference to documentation. Handwritten labels, one-end-only labels, color alone, or no labels all fail the industry standard.

43. A — Investigate the manufacturer's lifecycle status and advise the client accordingly. Discontinued manufacturers raise concerns about support, warranty, and parts availability that the client should know about before purchase. Proceeding silently, substituting without verification, or accepting without comment all fail the advisory professional role.

44. B — Remediate the installation to comply with the cable specification and verify signal integrity. Cable bend radius specifications exist because violating them degrades signal quality. Remediation followed by integrity verification is the professional response; accepting symptoms, replacing cable types, or ignoring the specification all fail the standard.

45. D — Audit logging of administrative actions with appropriate retention. Financial regulations (SOX, FINRA, and similar) require documented audit trails of significant actions. Display resolution, specific manufacturers, and bandwidth are not typically regulatory requirements.

46. A — Evaluate the alternatives against the acoustic requirements and provide an informed recommendation. Alternative equipment may be suitable, may not be, or may be suitable with modifications. Professional evaluation against requirements produces the informed recommendation. Blanket rejection, cost-based selection, or delegation to the client fail the professional advisory role.

47. C — Engage legal and compliance teams to establish appropriate retention and access controls. Recording content with PII has privacy implications requiring appropriate technical and procedural controls. Proceeding without privacy considerations, technical limitations alone, or fee-based approaches fail to address the compliance need.

48. B — Develop the integration using the published API according to standard practice. Published APIs are intended for integration; the professional response develops the integration using standard methods. Additional consulting fees, categorical refusal, or undocumented bypass methods all misread the appropriate professional response.

49. D — Heat from the amplifier rising into the DSP's intake airflow. Placing a DSP above a heat-generating amplifier compromises the DSP's cooling and can shorten its life. Installation cost, aesthetic consistency, and service access are secondary to proper thermal management.

50. A — Coordinate with the general contractor to align schedules and complete site readiness before installation. Trade dependencies require coordinated scheduling. Installing on temporary mounts, refusing to delay, or partial installation create rework and conflict.

51. D — Coverage uniformity across the listener area. A102.01 establishes the permissible SPL variation across a listener area and the measurement methodology — the core framework for professional audio coverage design. Loudspeaker frequency response, polar patterns, and amplifier specifications are different topics.

52. A — Coordinate with qualified cybersecurity specialists for the formal verification. Federal cybersecurity verification requires qualified specialists, not general familiarity or categorical refusal. Manufacturer compliance statements are inputs to verification, not the verification itself.

53. C — Assistive listening systems covering the seating area, per ADA and applicable standards. ADA and accessibility standards specify assistive listening requirements. Louder loudspeakers,

personal headphones, or increased microphone gain do not meet the specific assistive listening requirement.

54. B — Evaluate the new use case against the system design and identify any gaps or required modifications. Systems designed for one use may have gaps when used differently; professional evaluation identifies specific gaps and required modifications. Acceptance without evaluation or categorical replacement both misread the situation.

55. D — Code-compliant fire-stopping of the penetration. Fire-rated wall penetrations must be fire-stopped using approved materials to preserve the wall's fire rating. Pathway length, flexibility, and appearance are secondary to life-safety compliance.

56. C — Decline the endorsement because the CTS holder cannot honestly represent the product. The Code of Ethics prohibits endorsing products without personal knowledge. Accepting endorsement and compensation, endorsing based on claims, or accepting compensation privately all violate the honest-representation principle.

57. A — Include encryption, access controls, and appropriate retention policies in the design. Sensitive audio recording requires appropriate technical controls including encryption, access limitations, and retention policies. Unprotected recording, declining to address protection, or fee-based basic protection all fail the privacy obligation.

58. B — Coordinate with the building automation vendor to obtain API documentation and integration support. Proprietary APIs require vendor coordination. Rejection, reverse-engineering, or manual workarounds all produce worse outcomes than engaging the vendor for proper integration support.

59. D — Protection of sensitive client information encountered during professional work. The Code of Ethics confidentiality principle addresses proper handling of financial, strategic, personnel, and security information. Public disclosure, mandatory destruction, and warranty-related sharing all violate this principle.

60. A — Perform a site survey and recommission the AV system for the updated conditions. Site changes affect AV system performance; recommissioning for the updated conditions is the professional response. Original-design-based service, replacement, and refusal all fail the current client need.

61. C — Investigate the HVAC changes and coordinate remediation with the facility engineer. HVAC changes that increase noise floor affect AV performance; remediation requires coordination with the responsible engineering discipline. Volume compensation, HVAC replacement, and ignoring the change all fail to address the actual root cause.

62. B — Coordinate with the client and architect to identify an alternate mounting location suitable for the microphone array. Manufacturer specifications define the installation conditions where performance is verified. Coffered ceilings outside specification produce unreliable pickup. Coordination for an alternative is the professional response.

63. D — Coordinate with the security team to develop a practical update schedule that balances security with operations. Security policies are legitimate, but inflexible compliance that disrupts operations is a poor outcome. Coordination with the security team produces a practical schedule that serves both objectives.

64. A — Evaluate each component's condition, service life, manufacturer support status, and serviceability before recommending an upgrade path. Component-by-component evaluation produces the most appropriate upgrade path — some parts may need immediate replacement, others may have useful life remaining. Wholesale replacement, continued use without evaluation, or manufacturer-directed-only upgrades all fail the client's decision-making need.

65. C — Advise the client of the suitability concern and recommend professional consultation. Discovering a competitor's specification issue creates an obligation to inform the client without undermining the competitive process. Reporting to the manufacturer, direct competitor confrontation, or self-funded replacement all misread the appropriate professional response.

66. B — Pause the additional work until the change order is approved. Unapproved scope work creates contractual ambiguity. Professional practice waits for approval before executing new scope, maintaining progress on approved scope in the meantime. Proceeding, refusing categorically, or absorbing cost all fail the appropriate response.

67. A — Select equipment and design the system to function in the industrial environment. Industrial environments require appropriate equipment and design for the actual conditions. Standard equipment, reduced scope, or outdoor-rated misapplication all fail to serve the actual requirement.

68. A — Coordinate with IT to upgrade the network infrastructure. Bandwidth requirements must be matched to infrastructure; downgrading the stream, installing parallel networks, or accepting degradation fail to serve the client's actual need.

69. C — A formal demonstration of each functional requirement against the verification plan. Final walkthroughs demonstrate the system against the approved requirements — the basis of acceptance. Marketing materials, internal financials, and opportunity discussions have no place in client acceptance sessions.

70. C — Review the network traffic patterns and QoS configuration. Intermittent audio dropouts correlated with network activity indicate network-side issues — QoS misconfiguration, bandwidth saturation, or traffic contention. Hardware replacement without diagnosis fails to address the actual issue.

71. B — Contact the client's environmental team to assess proper remediation before installation. Asbestos is a serious health hazard requiring qualified remediation. Proceeding with standard precautions, skipping the area, or using personal respirators fail to meet the hazard-management requirement.

72. A — Mounting height and reach range compliance with ADA requirements. ADA specifies reach range and mounting height for interactive elements — the primary accessibility consideration for touch panels. Manufacturer certification, network bandwidth, and aesthetic design are secondary.

73. C — Engage healthcare compliance specialists to review against HIPAA and facility-specific regulations. Healthcare facility compliance requires qualified specialists familiar with both HIPAA and facility-specific regulations. Manufacturer documentation, internal review without specialist input, or ignoring regulations all fail the compliance requirement.

74. B — Redesign the pathway to provide code-compliant separation between power and signal. Long parallel runs of signal and high-voltage power are a code issue — the electrical code requires specific separation distances for safety and noise reasons. Acceptance, shielding alone, or cable substitution without separation all fail the code requirement.

75. D — Coordinate with qualified cybersecurity specialists to verify compliance with the specified standards. Federal facility cybersecurity requires formal verification by qualified specialists. General direction, industry-standard practices, or client self-certification all fail the verification requirement.

76. A — Review the existing code, understand the original logic, make targeted modifications, and document changes in the project archive. Professional code modification requires understanding original logic before changing it, with documentation for future maintainers. Rewriting, undocumented changes, or refusal all produce worse outcomes.

77. C — Review of applicable regulations in each jurisdiction before finalizing design. Multi-jurisdiction deployments face variable regulatory requirements. Uniform design ignoring regulations, single-manufacturer rationalization, or manufacturer claims alone all fail to meet jurisdiction-specific requirements.

78. B — Explain that explicit exclusions prevent disputes and retain them in the scope. Explicit exclusions protect both parties by preventing disputes about what was and was not included. Removing exclusions, blanket statements, or unsigned appendices all weaken the document's protective function.

79. D — Designing for appropriate redundancy and backup procedures aligned with the client's disaster recovery requirements. Disaster recovery requirements vary by client criticality; appropriate redundancy and backup procedures should align with documented requirements. Lowest-cost equipment, ignoring DR, or single-manufacturer standardization all fail to match the actual requirement.

80. A — Decline and recommend a licensed professional perform the certification. Building code compliance certification falls within the licensed professional's scope. CTS holders should decline certifications outside their licensure regardless of client pressure or integrator familiarity.

81. B — Follow the manufacturer's specification or coordinate for alternatives within specification. Equipment specifications define the conditions where performance and safety are assured. Installations outside specification may void warranties and create safety issues. Alternative solutions within specification are the professional path.

82. D — Change all default passwords to strong, unique credentials as a baseline security practice. Default credentials are a widely known security risk. Firewall position, public IP limitation, or network segmentation alone do not eliminate the default-credential exposure. Changing all default passwords is fundamental security hygiene.

83. A — Document the damage, coordinate with the client for repair, and establish appropriate cost allocation. Damage caused by a third party creates a clear record of circumstances and cost allocation. Silent repair, refusal, or false claims of pre-existing damage all fail the professional service standard.

84. C — Disclosure of conflicts of interest to affected parties. The Code's conflict-of-interest principle requires disclosure so that affected parties can make informed decisions. Manufacturer relationship requirements, financial reporting to AVIXA, and geographic limitations are not the Code's requirements.

85. B — Coordinate with the client's HR and compliance teams to establish appropriate access controls. HR system integration involves personnel data requiring appropriate controls. Unrestricted access, unencrypted connections, or proceeding without HR notification all violate privacy and compliance principles.

86. D — Develop a phased upgrade plan that prioritizes end-of-support components and addresses performance gaps systematically. Systematic upgrade planning addresses end-of-support risks and performance gaps in prioritized order. Immediate full replacement, continued operation, or marketing-based prioritization all fail the systematic approach.

87. A — Route the cables to avoid transmitting vibration or acoustic intrusion into the sensitive area. Sound-sensitive areas require pathway consideration to prevent vibration and acoustic transmission. Shortest-pathway routing, shared pathways, or consumer-grade cables all fail to preserve the acoustic environment.

88. C — Evaluate remaining useful life, support status, and system compatibility before recommending repair or replacement. Repair-vs-replace decisions require evaluating multiple factors. Reflexive repair, reflexive replacement, or indefinite deferral all fail to produce the informed recommendation the client needs.

89. B — Engage qualified cybersecurity specialists to confirm compliance with the specific requirements. Government agency cybersecurity compliance requires specialist verification of specific requirements. General practices, manufacturer claims, or familiarity-based assertions all fail the specific-requirement verification.

90. D — Document the capacity mismatch and propose formal capacity changes through the change-order process. Capacity mismatches affect system performance and require formal change management, not ad-hoc adjustment or ignorance.

91. B — Coordinate frequency assignments with the affected stakeholders. Wireless frequency coordination is a standard practice for large events where multiple wireless systems compete. Industry-wide operator coordination, wired replacement, or accepting interference all misread the standard solution.

92. C — Update the as-built drawings to accurately reflect the installed configuration. As-built drawings must represent what was actually installed. Unchanged drawings, verbal documentation, or excluded updates all compromise the operational value of the documentation.

93. B — The audio signal being sent to the local loudspeakers. AEC works by subtracting the known loudspeaker signal from the microphone pickup. The reference signal must match what the loudspeakers produce — not the microphone pickup, the transmitted signal, or the aggregate output.

94. D — Document the failure, investigate root cause, remediate, and retest before acceptance. Failed functional requirements must be resolved through investigation, remediation, and re-verification before acceptance. Declaring complete, proceeding with pending issues, or blaming the plan all fail the acceptance standard.

95. C — Establish a centralized backup protocol for DSP configurations and implement it as part of the ongoing support. Configuration backups are essential for recovery; local-only backups are a single point of failure. Centralized backup protocols enable reliable recovery regardless of device status.

96. A — ANSI/AVIXA A102.01 for audio coverage uniformity. A102.01 addresses audio coverage uniformity, which directly affects speech intelligibility across the listener area. V202.01 addresses display size; rack standards and program report standards are different scopes.

97. B — Heat from the amplifier rising into other equipment's intake and the rack's center of gravity. Heavy, heat-generating amplifiers belong at the bottom of the rack. Top placement creates both thermal and stability issues. Purchase cost, color coordination, and service access are secondary.

98. D — A firewall or network policy is blocking specific ports required for the conferencing service. When basic connectivity (ping) works but service registration fails, specific ports required for the service are likely blocked. Hardware failure, display incompatibility, and HDMI cable failure do not produce this specific pattern.

99. C — Coordinate with the manufacturer and update the specification to use hardware that actually supports the feature. Marketing materials that overstate supported features create downstream problems. Professional response verifies feature support and adjusts the specification to reflect reality before installation.

100. C — Differentiate maintenance cadence by room criticality, with more frequent visits to higher-stakes rooms. Uniform maintenance schedules misallocate resources — spending too much on low-stakes rooms and too little on high-stakes ones. Criticality-based tiering focuses resources where failures have the greatest consequence.