DUMPSARENA

BICSI Registered Communications Distribution Designer – RCDDv14

BICSI RCDDv14

Version Demo

Total Demo Questions: 33

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QUESTION NO: 1

Which two of the following are means in which radiated interference primarily enters electronic devices? (Select two options.)

A. Proximity to interfering sources

B. Missing or inadequate optical connections

C. Missing or inadequate device or cable shielding

D. Interface designs

E. Input signal lines

ANSWER: C E

Explanation:

Radiated interference primarily couples into equipment through openings or weaknesses in its electromagnetic boundary and through conductors attached to the equipment. “Missing or inadequate device or cable shielding” is correct because an enclosure, cable shield, and properly bonded shield termination reduce the electric- and magnetic-field energy that can reach susceptible circuitry. Gaps, seams, apertures, and ineffective cable shielding can allow incident RF energy to couple into the device or onto its connected cabling.

“Input signal lines” is also correct because a connected signal cable can act as an unintended receiving antenna. A radiated field induces common-mode or differential-mode voltages and currents on the cable; those disturbances can then be conducted through the interface into electronic circuits. This coupling path is particularly important when cable length, routing, shielding, grounding, and interface filtering do not adequately control the induced energy. Effective EMC design therefore considers enclosure shielding together with cable shielding, bonding, routing, and filtered or protected I/O interfaces. The FCC’s electromagnetic-compatibility guidance discusses the role of cables and enclosure openings in RF emissions and susceptibility, while NIST describes electromagnetic interference as unwanted electromagnetic energy that can disrupt electronic equipment. See FCC Equipment Authorization and NIST Electromagnetic Interference and Compatibility.

QUESTION NO: 2

When designing an outside-plant optical-fiber cable installation, which two cable-manufacturer requirements should be verified before installation? (Select two options.)

A. Maximum pulling tension

B. Minimum bend radius

C. Color of the innerduct

D. Number of patch cords at the work area

E. Location of the horizontal cross-connect

ANSWER: A B

Explanation:

Maximum pulling tension must be verified because excessive tensile force can damage optical fibers, strength members, buffer tubes, or the cable sheath. Pulling equipment, lubricants, pulling eyes, breakaway swivels, and installation methods should be selected so the manufacturer’s allowable tension is not exceeded.

Minimum bend radius must also be verified. Bending a cable more tightly than its allowed radius can create attenuation increases, fiber stress, jacket damage, and long-term reliability concerns. Installation and long-term bend-radius limits can differ, so both conditions should be addressed in the design and installation requirements. See the Fiber Optic Association’s underground fiber installation reference and BICSI Standards.

QUESTION NO: 3

Communicating a project's design and technical specifications to the client and stakeholders is part of the _____of the project.

A. scope of work

B. needs analysis

C. close out procedure

D. bidding phase

ANSWER: A

Explanation:

scope of work is correct because it establishes and communicates the work that the project will deliver, including the intended design, applicable technical requirements, deliverables, boundaries, and responsibilities. In a telecommunications infrastructure project, the scope of work gives the client and other stakeholders a common, documented understanding of what the designer is proposing and what must be provided to achieve the project objectives. Design drawings and technical specifications support this communication by documenting system requirements, installation expectations, materials, performance criteria, and other details needed for review, approval, procurement, and implementation. Clearly defining the scope also provides a basis for managing stakeholder expectations and evaluating whether the completed work satisfies the agreed project requirements. This is consistent with BICSI design practice, in which the designer translates client requirements into documented infrastructure design and specification information. BICSI's standards portfolio identifies telecommunications distribution methods and documentation-related design practices that support this role; see BICSI Standards. The importance of defining project scope and communicating requirements to stakeholders is also reflected in established project-management guidance from the Project Management Institute.

QUESTION NO: 4

Which two of the following types of metallic conduit REQUIRE threaded couplings? (Select two options.)

A. Electrical metallic tubing (EMT)

B. Aluminum metal conduit (AMC)

C. Flexible metal conduit (FMC)

D. Intermediate metal conduit (IMC)

E. Rigid metal conduit (RMC)

ANSWER: D E

Explanation:

Intermediate metal conduit (IMC) and rigid metal conduit (RMC) require threaded couplings because both are rigid, threaded raceway systems. Their listed construction includes threads at the ends, allowing conduit lengths, fittings, and enclosures to be joined with threaded fittings. This connection method provides the robust mechanical continuity expected for these metallic raceways and, when properly installed, supports the required electrical bonding path. IMC is a steel raceway with a wall thickness and weight lower than RMC, while RMC is the heaviest-wall steel raceway; nevertheless, both use threaded joining methods as part of their standard installation requirements. The National Electrical Code addresses IMC in Article 342 and RMC in Article 344, including the requirement that threaded conduit be made wrench-tight and that threaded fittings be used where required. These construction and installation characteristics are why intermediate metal conduit (IMC) and rigid metal conduit (RMC) are the two applicable selections. For the applicable code article scope and installation requirements, see the NFPA 70 (National Electrical Code) information page and the UL Code Finder resources for IMC.

QUESTION NO: 5

Open RFI's should be reviewed on a _____basis.

A. daily

B. bi-weekly

C. weekly

D. bi-monthly

ANSWER: C

Explanation:

Open RFIs should be reviewed on a **weekly** basis. In communications-distribution design and construction administration, an RFI log is an active control document: it identifies questions needing clarification, records the responsible party, tracks due dates, and documents the resulting direction. A weekly review creates a regular project-management cadence for checking response status, escalating overdue items, determining whether an answer affects drawings, specifications, schedule, cost, procurement, or installation sequencing, and communicating the disposition to the appropriate project stakeholders. This frequency is sufficiently regular to prevent unresolved design or field questions from being lost or becoming construction delays, while supporting the scheduled coordination meetings commonly used during a project. The designer should also address an RFI sooner when its urgency or potential project impact requires immediate action; however, the routine review interval for the open-RFI register is weekly. This practice supports the RCDD's responsibility to coordinate the telecommunications infrastructure design through construction and maintain clear project documentation. BICSI describes RCDD credential holders as professionals who design and implement telecommunications distribution systems; see BICSI's RCDD certification information. For the broader project-control context, see the Project Management Institute's guidance on project communications management.

QUESTION NO: 6

A project's installation start involves a Kickoff Meeting and the General Contractor's Coordination Meeting. As part of the designer's responsibilities, which two of the following ate key elements of the Kick-off Meeting? (Select two options.)

A. Project submittal approval process

B. RFI process

C. Payment procedures

D. Punch List process

E. Project start and completion dates

ANSWER: B E

Explanation:

RFI process and **Project start and completion dates** are key Kick-off Meeting elements because they establish the communication and schedule controls needed before installation work proceeds. The RFI process defines how questions, field discrepancies, and requests for clarification are documented, routed, answered, tracked, and incorporated without creating unapproved scope changes. This gives the designer a structured means to protect the design intent while supporting timely construction decisions. Project start and completion dates establish the baseline milestone framework for the communications scope, including coordination with the general contractor, other trades, access to work areas, material lead times, testing, and closeout activities. Confirming these dates at kickoff allows the designer to evaluate whether the installation sequence and project schedule support the specified infrastructure and telecommunications deliverables. Together, these items provide the essential early controls for issue resolution and time-based coordination that the designer must monitor during construction administration. BICSI's standards and education resources emphasize coordinated planning, documented processes, and lifecycle delivery of telecommunications infrastructure; see BICSI Standards and BICSI Education and Certification.

QUESTION NO: 7

When designing diverse outside-plant pathways for critical communications services, which two of the following practices provide the GREATEST reduction in common-mode failure risk? (Select two options.)

A. Route the pathways through physically separated corridors

B. Place both cable routes in the same conduit bank

C. Avoid shared maintenance holes and handholes where practical

D. Use identical cable identifiers for both routes

E. Terminate both routes on the same patch panel field

ANSWER: A C

Explanation:

Route the pathways through physically separated corridors and **avoid shared maintenance holes and handholes where practical** are correct. Diversity is meaningful only when the pathways do not share the same physical hazards. Separate routes reduce the likelihood that a single excavation, fire, flood, structural failure, or utility incident will damage both communications paths.

Using separate maintenance structures also reduces the risk that a localized event or maintenance error affects both routes. The designer should evaluate the full route, including building entrances, conduit banks, maintenance holes, cable vaults, bridge crossings, and service-provider facilities. See BICSI Standards and the FCC Pole Attachments resource for outside-plant coordination context.

QUESTION NO: 8

What is the MINIMUM clearance needed between the front of the telephone booth and any wall or fixture for most installations?

A. 300 mm (12 in)

B. 450 mm (18 in)

C. 610 mm (24 in)

D. 914 mm (36 in)

E. 2.4 m (8 ft)

ANSWER: C

Explanation:

610 mm (24 in) is the minimum front clearance generally used for a telephone booth in most installations. This clearance provides the basic unobstructed space needed for a person to approach and use the booth and for the booth door, where fitted, to be operated without immediately contacting an opposing wall, furnishing, or other fixed building feature. During telecommunications-space planning, clearances are a practical part of accommodating equipment use and maintaining usable access, rather than simply fitting the booth within its nominal exterior dimensions.

The stated dimension is a general installation minimum for the front of the booth. The designer must still coordinate the final location with the building layout, circulation routes, applicable accessibility requirements, and the specific booth manufacturer's installation instructions. Where accessibility provisions apply, a larger clear floor or maneuvering space may be necessary; however, that does not change the general minimum clearance asked for here. BICSI design guidance emphasizes coordinated planning of telecommunications infrastructure with architectural and pathway-space requirements; see BICSI Standards. Accessibility-related clear-floor-space and maneuvering requirements should also be verified against the applicable code, such as the U.S. Access Board ADA clear floor or ground space guidance.

QUESTION NO: 9

The type of apparatus housed in TRs varies greatly in size, purpose and function. Which two of the following active equipment is included? (Select two options.)

A. Cross-connect facilities

B. Telecommunication's equipment

C. Environmental controls

D. Lighting controls

E. Building system equipment

ANSWER: B E

Explanation:

Telecommunication's equipment and building system equipment are the active-equipment categories that may be housed in a telecommunications room (TR). A TR is a building-space component of the structured cabling system that supports distribution of telecommunications services to the work areas it serves. Its contents can include powered telecommunications electronics, such as network switches and other equipment used to process, regenerate, switch, or distribute communications signals. The room may also accommodate active equipment supporting building systems, particularly where those systems rely on the building's telecommunications infrastructure for connectivity, monitoring, control, or service delivery. The specific apparatus installed depends on the building's size, operational needs, and the systems served by that TR. Designing for these devices requires appropriate pathways, rack or cabinet space, power, grounding and bonding, environmental capacity, and access for operation and maintenance. This distinction is important because active equipment needs supporting infrastructure beyond the passive cabling and connection hardware that form the structured cabling distribution system. BICSI's telecommunications-distribution guidance addresses TR planning and the accommodation of equipment supporting communications services; see BICSI Standards and the BICSI Telecommunications Distribution Design program overview.

QUESTION NO: 10

A three-year program using vendor contracts, incorporating related projects, and each with specific stakeholders is coming to an end What should be completed first to close all appropriate contracts?

A. Certify contract completion

B. Conduct a procurement audit to review the procurement process

C. Assess all contracts to ensure all agreed conditions are met

D. Review contract management plan for completeness

ANSWER: C

Explanation:

Assess all contracts to ensure all agreed conditions are met is the appropriate first action because contract closure begins by verifying that each supplier and the organization have fulfilled the contractual scope, deliverables, acceptance requirements, payment obligations, warranties, documentation, and any other stated terms. In a multiyear program containing related projects and different stakeholder groups, this assessment must be performed contract by contract; completion on one project does not establish completion of a separate supplier agreement. The review also identifies open claims, unresolved changes, outstanding deliverables, or continuing obligations that must be addressed before formal closure can occur. Once the organization has confirmed that the contractual conditions have been satisfied and the required stakeholder acceptance has been obtained, it can formally certify completion and complete the administrative closeout records. This sequence preserves the contractual record, supports final acceptance and payment decisions, and reduces the risk of prematurely closing an agreement while obligations remain. PMI procurement-management guidance describes control of procurements as managing contractual relationships and monitoring performance, including changes and closure activities. See PMI's contract-closeout guidance and PMI's PMBOK Guide overview.

QUESTION NO: 11

Which two of the following items should be considered for inclusion in a comprehensive working outline of a SoW? (Select two options.)

A. Schedule

B. Contract administration

C. Legal matters

D. Technical considerations

E. Financial matters

ANSWER: A D

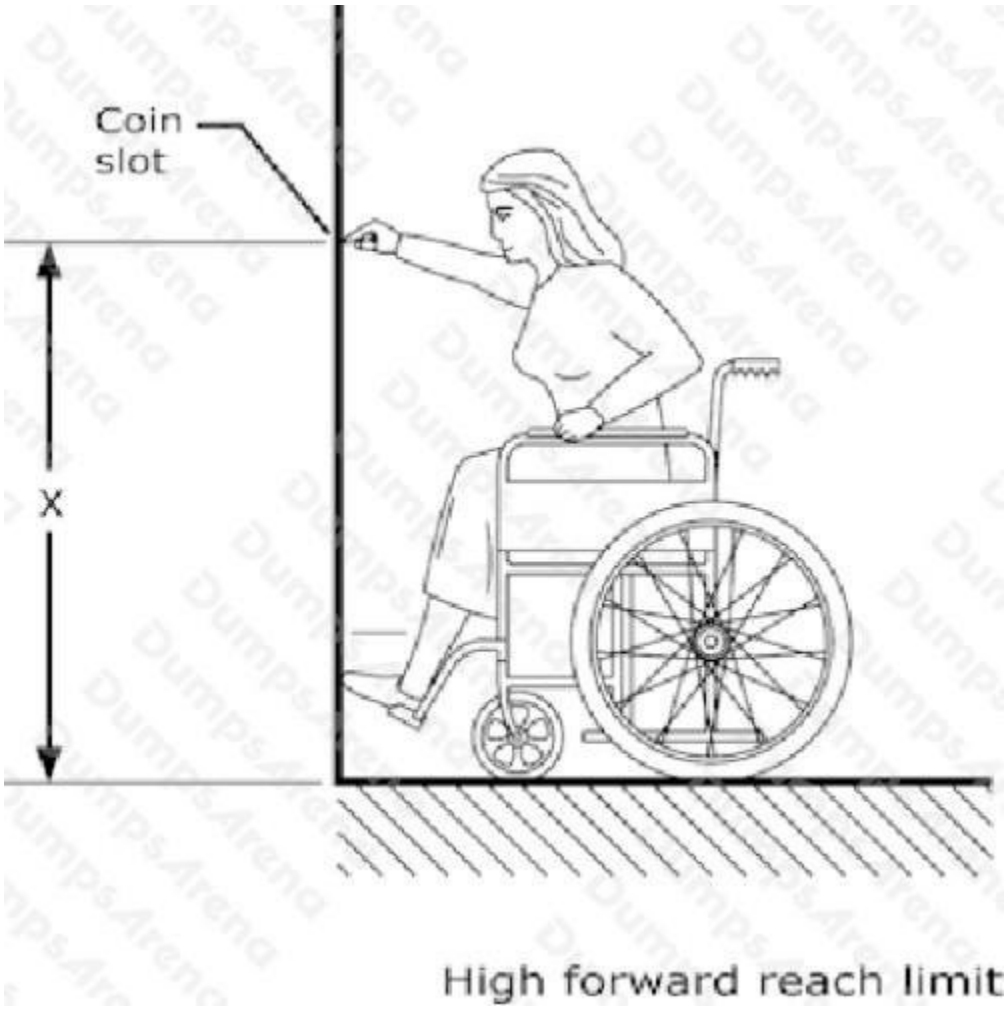
Explanation:

A comprehensive statement of work (SoW) must establish both the time framework for the work and the technical basis on which the work will be designed, installed, tested, and accepted. **Schedule** is essential because it identifies key milestones, sequencing, completion dates, dependencies, and any required coordination with other project activities. Including this information in the working outline helps the project team align resources and procurement activities with the required delivery timeline.

Technical considerations are equally fundamental because the SoW needs to communicate the applicable technical requirements and constraints. For communications-distribution work, this can include referenced standards, system performance expectations, pathways and spaces requirements, installation methods, testing, documentation, and acceptance criteria. A sufficiently detailed technical outline allows bidders and project stakeholders to develop a common understanding of the intended result and supports consistent evaluation of completed work. These subjects reflect the practical core of a working SoW: defining what technical result is required and when it must be delivered. The Project Management Institute describes the statement of work as a narrative description of products, services, or results to be delivered; see PMI's statement-of-work guidance. BICSI's standards and publications provide the technical design framework that informs such requirements; see BICSI Standards.

QUESTION NO: 12

Exhibit:



A pay telephone using coins needs to be installed in a public area. In the specifications, it is required that the telephone shall meet the ADA (American with Disabilities Act) requirement for front reach using a wheelchair. What will be the maximum reachable height or the value of "X"?

A. 760 mm (30 in)

B. 864 mm (34 in)

C. 1170 mm (46 in)

D. 1220 mm (48 in)

E. 1370 mm (54 in)

ANSWER: D

Explanation:

The correct maximum reachable height is **1220 mm (48 in)**. Under the ADA Standards, an operable part that is approached from the front by a person using a wheelchair must be within the permitted forward-reach range. For an unobstructed forward reach, the high forward-reach limit is 48 inches (1220 mm) above the finished floor or ground. On a coin-operated public telephone, the controls needed to place a call—such as the coin slot, keypad, card reader, or other user-operated components—must be positioned so the required operable part does not exceed this height when front access is provided. The height is measured vertically from the finished floor or ground surface to the operable part being reached. This reach criterion supports independent use by a wheelchair user and is the applicable maximum for the stated front-reach condition. The U.S. Access Board's ADA guide identifies 48 inches as the maximum high forward reach where the reach is unobstructed. The enforceable dimensional requirement appears in Section 308.2 of the 2010 ADA Standards for Accessible Design. See the U.S. Access Board ADA Reach Ranges Guide and 2010 ADA Standards for Accessible Design.

QUESTION NO: 13

The program manager completed the program's benefits analysis and planning activities. What will this ensure tor the program?

A. Information necessary to establish key benefit performance indicators

B. A transition plan to facilitate the ongoing realization of benefits

C. A plan to monitor performance due to operational, financial, and benefits changes

D. A benefits management plan to guide the work through the remainder of the program

ANSWER: D

Explanation:

Completing benefits analysis and planning activities ensures that the program has **a benefits management plan to guide the work through the remainder of the program**. Benefits analysis identifies the intended benefits, their expected value, the measures used to assess attainment, the assumptions and risks affecting realization, and the stakeholders accountable for sustaining outcomes. Planning then consolidates this information into an actionable management approach that aligns program components, governance decisions, benefit measures, realization timing, and transition considerations with the program's strategic objectives.

The benefits management plan is not merely a list of anticipated outcomes. It establishes how benefits will be defined, tracked, reported, validated, and managed throughout the program life cycle and into transition as applicable. It gives the program manager a continuing basis for directing work toward measurable business value, evaluating whether the program remains aligned with organizational strategy, and coordinating benefit-realization responsibilities. This is consistent with PMI's benefits-realization guidance, which emphasizes managing benefits from identification and planning through delivery and sustainment. See PMI's Benefits Realization Management Framework and its overview of benefits realization management.

QUESTION NO: 14

When preparing an upfront cost estimate, the ICT distribution designer MUST consider which two of the following fees? (Select two options.)

A. Taxes

B. Permits

C. Inspection

D. Licensing

E. Safety

ANSWER: B C

Explanation:

Permits and **Inspection** are the required fees to include because ICT infrastructure work is commonly subject to the authority having jurisdiction's permitting and inspection processes. Permit fees are typically incurred before installation or construction begins, and they should be identified early so the project budget reflects the administrative cost of obtaining authorization for the work. Inspection fees cover the jurisdictional verification that the installed work complies with applicable codes, approved plans, and local requirements. These costs can vary materially by municipality, project scope, construction value, and the number of required inspection visits, so an upfront estimate should account for them rather than treating them as unforeseen field expenses. Including both categories supports a more complete project budget and helps the owner understand costs associated with regulatory approval and acceptance of the ICT installation. BICSI's design guidance emphasizes coordination with applicable codes and authorities having jurisdiction throughout the design process; see BICSI Standards. The permitting and inspection role of code authorities is also described by the International Code Council.

QUESTION NO: 15

When installing J-hooks to support horizontal cabling, which two of the following practices should be followed? (Select two options.)

A. Support the J-hooks independently from the building structure

B. Use ceiling-support wires as the primary support method

C. Maintain the manufacturer's maximum cable-fill requirement

D. Secure cable bundles tightly to the J-hook with nylon cable ties

E. Install J-hooks only where the ceiling is inaccessible

ANSWER: A C

Explanation:

Support the J-hooks independently from the building structure and **maintain the manufacturer's maximum cable-fill requirement** are correct. J-hooks are intended to provide continuous, properly sized support for telecommunications cables without introducing excessive pressure, sharp bends, or crushing forces. The support system must be attached to approved structural elements or other independently supported infrastructure, not to ceiling-support wires or unrelated building services.

Maintaining the manufacturer's fill limitation helps preserve cable geometry and transmission performance while allowing for orderly additions and changes. Cable pathways must not be overloaded or used in a manner that exceeds the support system's listing or installation instructions. See BICSI Standards and the TIA pathways and spaces standards information.

QUESTION NO: 16

A telephone facility and an electrical facility are required in a tunnel. To reduce the effects of EMI and eliminate the need for additional shielding of the cables, where would each facility be placed?

A. On opposite sides of the tunnel

B. On the same sides of the tunnel

C. Together on the same pathway for easy access and maintenance

D. One on the top part and one on the bottom part of the same side of the tunnel

E. On the exterior of the tunnel

ANSWER: A

Explanation:

On opposite sides of the tunnel is correct because physical separation is a primary means of controlling electromagnetic interference between power distribution and telecommunications cabling. Electrical conductors, particularly those serving loads that create changing current or transient conditions, can produce electromagnetic fields that couple into nearby balanced communications cabling. Routing the telephone facility and electrical facility along opposing sides of the tunnel maximizes the practical separation available in that environment, reducing the likelihood of inductive and capacitive coupling. This approach supports reliable telecommunications performance without relying on supplemental cable shielding as the principal mitigation measure.

BICSI design practice emphasizes pathway planning, segregation of telecommunications from electrical services, and maintaining separation appropriate to the power source and installation conditions. In a tunnel, opposite-side routing is especially useful because the tunnel's length can otherwise create an extended parallel exposure between the systems. The designer should still coordinate the installation with applicable electrical and telecommunications requirements, including pathway access, supports, bonding and grounding, fire/life-safety provisions, and any required separation at crossings. See

the BICSI Standards overview and the Telecommunications Industry Association standards resources for standards information relevant to telecommunications pathways and separation practices.

QUESTION NO: 17

Which two of the following roles do an ICT distribution designer use to ensure a timely and cost-effective telecommunications construction project? (Select two options.)

A. Discuss design concerns with inspectors. AHJs, and other stakeholders.

B. Verify that the overall physical security design complies with the owner expectations.

C. Assist in the resolution of unforeseen conditions, change orders RFIs and changes to the project's critical path.

D. Ensure the construction materials are stored properly and protected from theft.

E. Coordinate electrical supply so it is available in advance of the starting of contractor work.

ANSWER: A C

Explanation:

“Discuss design concerns with inspectors. AHJs, and other stakeholders.” is a key construction-administration role for the ICT distribution designer. Communication with authorities having jurisdiction, inspectors, the owner, and affected project participants helps clarify code, permit, inspection, and design-intent issues before they produce field delays or costly rework. The designer serves as a technical resource and maintains alignment between the documented telecommunications design and conditions encountered during implementation.

“Assist in the resolution of unforeseen conditions, change orders RFIs and changes to the project's critical path.” is also essential. During construction, field conditions and coordination conflicts can require requests for information, design clarification, revised documentation, or a formal change. The designer’s timely technical input helps the project team evaluate the impact on pathways, spaces, cabling, grounding and bonding, firestopping, and related infrastructure. This support protects the design intent while enabling informed schedule and cost decisions. BICSI’s standards program addresses coordinated ICT infrastructure design and implementation practices; see BICSI Standards and BICSI’s RCDD certification overview.

QUESTION NO: 18

A program manager is assigned to a large cross-functional program trial includes five different technologies and multiple workstreams.

Some potential stakeholders have conflicting program expectations

What should the program manager do next/?

A. Conduct interviews with key stakeholders, and document the results in the program management plan

B. Update the stakeholder register to document stakeholders' positions relative to the program

C. Document stakeholder expectations in the program's risk register to determine their influence

D. Send out satisfaction surveys and document the results in the program's stakeholder engagement plan.

ANSWER: B

Explanation:

Update the stakeholder register to document stakeholders' positions relative to the program is the appropriate next action because the program manager needs a clear, structured understanding of each stakeholder’s interest, influence, current attitude, and likely impact on program outcomes. In a large cross-functional program with multiple technologies and workstreams, expectations can vary significantly among sponsors, functional leaders, technical teams, users, suppliers, and

governance groups. Recording stakeholder positions—such as supportive, neutral, resistant, or undecided—enables the manager to prioritize engagement and develop appropriate communication and relationship-management approaches. This analysis also establishes a current-state baseline that can be revisited as stakeholder influence, concerns, or expectations change over the program life cycle. A stakeholder register is a core artifact for identifying stakeholders and capturing relevant assessment information needed for engagement planning and governance. Once positions and expectations are documented, the program manager can use that information to tailor the stakeholder engagement strategy, address conflicts constructively, and align stakeholders with the program's intended benefits and objectives. PMI describes stakeholder identification and engagement as essential to achieving project and program success; see the PMBOK® Guide and Standards and PMI's Standard for Program Management.

QUESTION NO: 19

Which two of the following are included in the ICT distribution designer's role of vendor and contractor coordination'? (Select two options.)

A. Conduct final ICT inspections to ensure standard and code compliance, design intent, and/or client requirements are met.

B. Monitor project schedule for delays

C. Produce ICT closeout documentation for the owner to provide the record documentation of the installation

D. Communicate status to stakeholders

E. Assist in the resolution of unforeseen conditions, change orders. RFIs, and changes to the project's critical path

ANSWER: D E

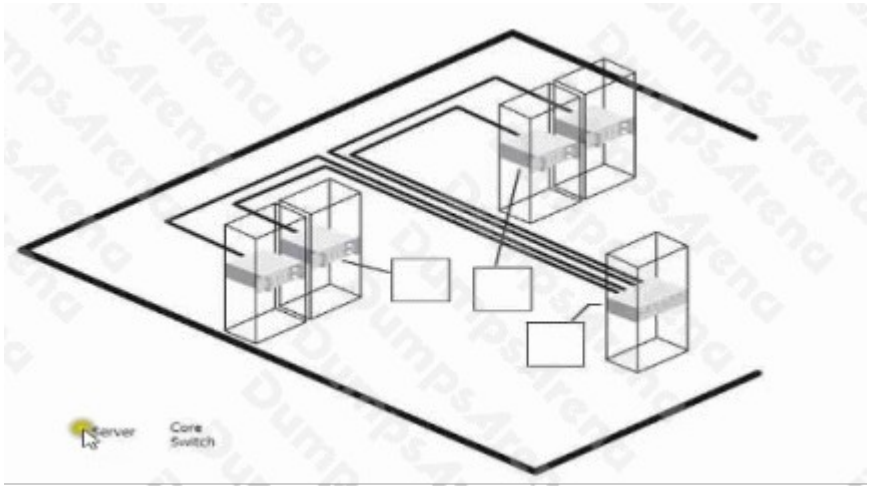
Explanation:

"Communicate status to stakeholders" is a core vendor and contractor coordination activity because the ICT distribution designer must keep the owner, project team, contractors, and affected vendors informed of installation progress, coordination constraints, decisions, and issues that may affect ICT scope. Timely, clear status communication supports alignment between the ICT work and the broader construction effort.

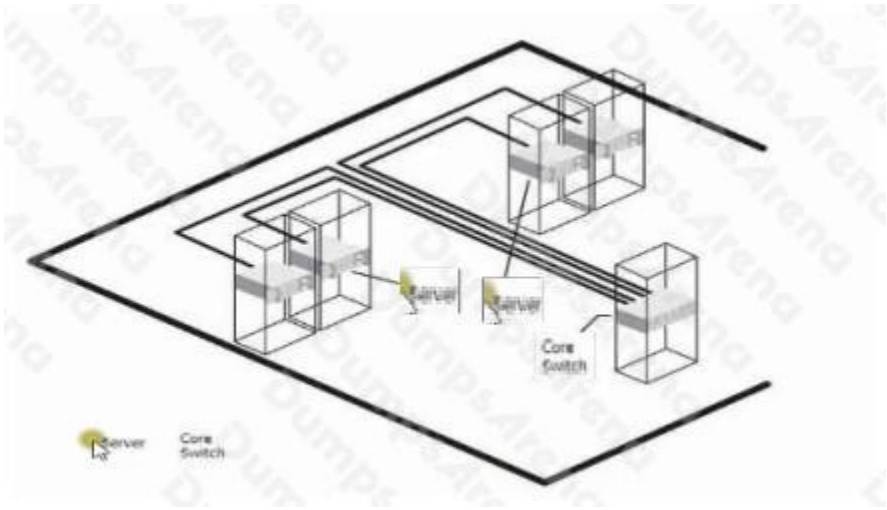
"Assist in the resolution of unforeseen conditions, change orders. RFIs, and changes to the project's critical path" is also part of coordination because field conditions and design or construction changes often require the designer to clarify design intent, evaluate impacts to pathways, spaces, cabling, and associated systems, and support documented responses. This involvement helps ensure that changes are properly coordinated with stakeholders and remain consistent with the ICT design requirements. These responsibilities reflect the RCDD's role in managing and coordinating communications-infrastructure design intent throughout project implementation, rather than merely producing a design package. BICSI describes the RCDD credential as covering the design, implementation, and integration of ICT infrastructure; see BICSI RCDD Certification and BICSI's standards resources.

QUESTION NO: 20 - (DRAG DROP)

Identify the core switch(es) and server(s) of the data center in the diagram below by dragging the appropriate term into each box in the diagram.



ANSWER:



Explanation:

The two boxes positioned across the middle of the diagram should be labeled **Server**, and the box positioned lower and farther right should be labeled **Core Switch**. The drawing shows two equipment locations acting as endpoints for the horizontal cable runs: one rack is at the left side of the data center space and another is toward the upper portion of the drawing. These are the server locations. Each server rack has a pathway route leading away from it toward the same area on the right side of the room.

The rack at the right is the common convergence point for the cabling from both server locations. In a data-center topology, that shared aggregation function is performed by the core switch. The core switch provides the central network connection point through which the server systems communicate with the broader network and with other services. Placing the core-switch label at the lower-right box correctly associates it with the right-hand rack and the terminating cable routes.

This layout reflects the structured approach used in data-center design: locate active equipment according to its network role and trace pathways to determine where endpoint connections aggregate. BICSI data-center design guidance addresses the planning of telecommunications spaces, pathways, and infrastructure that support these functional relationships; see BICSI 002, Data Center Design and Implementation Best Practices. The diagram's pathway routing makes the role distinction clear: the two endpoint racks are servers, while the shared aggregation rack is the core switch.

QUESTION NO: 21

An ICT distribution designer installed a 50/1 ?5 mm/1300 nm fiber optic cable from Building A to identical Building B with a distance of 600 m (1968 ft) At Building B. the designer fusion splice this new cable to an existing identical 50/126 mm fiber optic cable that runs 800 m (2525 ft) to Building C. Both ends are terminated with SC connectors. What is the loss budget for the above fiber link?

A. 2.95 dB

B. 3.40dB

C. 3.90 dB

D. 4.35 dB

ANSWER: C

Explanation:

3.90 dB is the correct loss budget using the design allowances conventionally applied to this 1300 nm multimode link. The total installed optical-fiber length is 1,400 m (600 m plus 800 m), or 1.4 km. Using the 1300 nm multimode cable attenuation allowance of 1.5 dB/km results in 2.10 dB of cable loss. The end-to-end channel has two SC connector pairs/end terminations, with an allowance of 0.75 dB for each connector, adding 1.50 dB. There is also one fusion splice at Building B; applying the 0.30 dB splice allowance adds 0.30 dB. The total is therefore 2.10 dB + 1.50 dB + 0.30 dB = 3.90 dB. This calculated value is the passive-link loss budget used to confirm that the installed cabling channel has adequate margin relative to the active-equipment optical power budget. BICSI design practice uses applicable component-loss allowances and total route length when establishing this budget; see BICSI Standards and the fiber-optic loss-budget discussion from The Fiber Optic Association.

QUESTION NO: 22

The program manager leads a medical billing system integration program for company A. a health services provider Company A acquires smaller company X. which delivers health services strategically aligned with company A Company X uses a different billing approach than company A. Company A's chief information officer (CIO) seeks counsel on which solution would be the better option moving forward requesting the program manager's assistance.

How should the program manager respond to the CIO's request1?

A. Document the resources required to implement the recommended solution and demonstrate how this solution will save the company money

B. Find similar examples of the preferred approach and ask the project teams to document why the preferred approach is better

C. Gather the costs and benefits associated with each option and recommend the appropriate solution defining why the selected approach is better

D. Conduct a thorough stakeholder analysis and develop a program management plan to implement the appropriate solution for both companies.

ANSWER: C

Explanation:

Gather the costs and benefits associated with each option and recommend the appropriate solution defining why the selected approach is better is the appropriate response because the CIO is asking for decision support on a business and technical integration choice. The program manager should provide an objective, evidence-based comparison of the viable billing approaches, including implementation and operating costs, expected benefits, integration impacts, risks, resource needs, regulatory and privacy considerations, and alignment with Company A’s strategic objectives. This enables the CIO to make an informed governance decision based on measurable value rather than preference or isolated implementation considerations. A recommendation should clearly state the evaluation basis, the expected organizational benefits, key assumptions, and the rationale for selecting the approach that best supports the combined organization. This is consistent with program-management practice: programs are directed toward strategic objectives and benefits realization, while program governance supports informed decisions and prioritization. The PMI describes program management as coordinated management of related projects and activities to obtain benefits not available when managed separately, and its benefits-realization guidance emphasizes identifying and measuring expected value. See PMI’s overview of program management and PMI’s benefits realization management resource.

QUESTION NO: 23

In which phase of the protect design would an ICT distribution designer be expected to prepare preliminary cost estimates?

A. CD

B. SD

C. PD

D. DD

ANSWER: B

Explanation:

SD is correct because schematic design is the phase in which the ICT distribution designer develops the initial design concept sufficiently to identify the principal pathways, spaces, distribution approach, major systems, and anticipated infrastructure scope. With that early definition in place, the designer can prepare a preliminary cost estimate based on conceptual quantities, applicable unit costs, and significant project conditions. This estimate is intended to support owner decisions, budget validation, and further design direction before the design is developed into the detailed, coordinated information needed for final pricing and construction. Cost estimating is therefore progressive: the estimate becomes more refined as drawings, specifications, quantities, and coordination details mature. BICSI's RCDD credential encompasses the planning and design responsibilities needed to produce ICT infrastructure designs through these project stages, including communicating technical and project-budget considerations to stakeholders. See BICSI's RCDD certification overview and the American Institute of Architects' description of design phases, which identifies schematic design as the stage for establishing the project concept and preliminary cost parameters.

QUESTION NO: 24

When responding to a submittal that has been rejected and/or has comments written by a reviewer, the ICT distribution designer may need to perform which two of the following actions? (Select two options.)

A. Request a Change Order from the client for the extra work performed.

B. Document the reviewer's status and/or comments

C. Review the contract requirements and revise the submittal to comply with these requirements

D. Request a variance from the contract requirements from the client.

E. Submit an alternate product in lieu of one that was previously submitted, even if it does not meet all of the contract requirements

ANSWER: B C

Explanation:

The appropriate response includes **Document the reviewer's status and/or comments** and **Review the contract requirements and revise the submittal to comply with these requirements**. A reviewer's disposition and written comments become part of the project's formal submittal record. Capturing that information provides traceability, identifies the required corrective work, supports communication among the designer, contractor, owner, and reviewer, and helps ensure that the resubmittal directly addresses the review outcome. The record should identify the relevant submittal, revision or response status, comments received, and the action taken to resolve those comments.

A rejected or commented submittal must also be evaluated against the contract documents, including specifications, drawings, approved amendments, and applicable standards. The designer should revise the proposed product, drawing, calculation, or other submittal material so that it demonstrates compliance before resubmission. This process maintains alignment between the installed ICT solution and the owner's documented requirements while preserving a clear audit trail for design decisions and approvals. BICSI's standards and publications framework emphasizes documented, standards-based design and coordinated project documentation; see BICSI Standards and BICSI RCDD Credential.

QUESTION NO: 25

A natural disaster shuts down operations for two days. The program has a major milestone that includes a timed payment of USS1 million.

Since the shutdown was not anticipated, what should the program manager do first?

A. Implement the appropriate risk response plan and inform the stakeholders of the planned actions

B. Utilize contingency reserves to hire contractors, which will accelerate the schedule to meet the original milestone

C. Evaluate the impact, reassess the program risks, and determine options to be presented to the governance board

D. Collaborate with the sponsor to determine options and negotiate a new date for the milestone

ANSWER: C

Explanation:

Evaluate the impact, reassess the program risks, and determine options to be presented to the governance board is the appropriate first action because the shutdown is an unanticipated event with potential schedule, cost, contractual, and benefits-realization consequences. Before committing contingency funds, accelerating work, or seeking a revised milestone date, the program manager needs reliable impact information: the affected work, critical-path and dependency effects, forecast completion date, exposure to the timed payment, available reserves, and any new threats or opportunities created by the disaster. This assessment supports an updated risk posture and enables realistic response alternatives, such as recovery sequencing, schedule compression, reserve use, or a governance decision on tolerances and milestone changes. Program governance exists to provide oversight, decision making, and authorization when an issue may affect program objectives, funding, or approved baselines. Presenting analyzed options allows the governance board to make an informed, properly documented decision at the appropriate authority level. This follows PMI's emphasis on actively assessing uncertainty and responding to issues through integrated program decision making. See PMI's Standard for Program Management and PMI's risk management standards resources.

QUESTION NO: 26

An aircraft manufacturer is engaged by an airline to build a fleet of new airliners. The program charter has been approved but the stakeholders are concerned that the delivery method of the program may not meet their expectations

Using the program master schedule what will the program manager incorporate to align the program with the expectations of the stakeholders?

A. Program work breakdown structure (PWBS) program scope statement, and benefits management plan

B. PWBS, benefits management plan, and program financial management plan

C. Program charter PWBS, and program scope statement

D. Program scope statement benefits management plan, and program financial management plan

ANSWER: A

Explanation:

Program work breakdown structure (PWBS) program scope statement, and benefits management plan is correct because these items provide the essential basis for building and maintaining a program master schedule that reflects stakeholder expectations. The program scope statement establishes the program's boundaries, major deliverables, assumptions, and acceptance approach. It ensures that the schedule represents the authorized work required to deliver the fleet and associated program outcomes. The PWBS then organizes that authorized scope into manageable, traceable program work, allowing major deliverables, component projects, integration activities, and dependencies to be logically scheduled. Finally, the benefits management plan connects planned delivery dates and milestones to the benefits the airline expects, such as operational capability, fleet availability, and realization of business value. Incorporating these inputs enables the program manager to create a schedule that is not merely a timeline of manufacturing tasks, but an integrated plan for delivering approved scope and intended benefits. This alignment supports transparent stakeholder communication,

appropriate milestone definition, and informed decisions when delivery sequencing or program priorities must be adjusted. PMI describes program management as coordinated management directed toward achieving strategic objectives and benefits; see PMI's Program Management standards and its overview of project and program management concepts.

QUESTION NO: 27

When a telecommunications pathway penetrates a fire-rated barrier, which two of the following practices are REQUIRED? (Select two options.)

A. Use a listed system for the specific penetration assembly

B. Restore the firestop system after cable additions or removals

C. Fill unused sleeves with spare cable to prevent smoke migration

D. Use any sealant that matches the wall color

E. Install firestopping only at floor penetrations

ANSWER: A B

Explanation:

A firestop system must be **listed for the specific barrier, penetrant, and opening condition**. Firestop performance depends on the complete tested system, including the wall or floor assembly, pathway material, cable type and quantity, annular space, backing material, and firestop materials. Substituting unlisted materials or installation arrangements can invalidate the intended fire-resistance performance.

The firestop system must also be **restored after cable additions or removals**. Telecommunications pathways are frequently accessed for moves, additions, and changes. Any activity that disturbs an existing firestop system must be followed by restoration in accordance with the listed system and project requirements. See UL firestop systems and components and NFPA codes and standards.

QUESTION NO: 28

A 3 trade size conduit is sized at

A. 78 mm (3 in)

B. 91 mm (3 1/2 in)

C. 103 mm (4 in)

D. 129 mm (5 in)

ANSWER: A

Explanation:

78 mm (3 in) is correct because a conduit trade size of 3 designates nominal 3-inch conduit. In metric terms, 3 inches equals 76.2 mm, commonly rounded and presented as approximately 78 mm in pathway-design references. Trade size is the standardized nominal designation used to specify raceways, coordinate fittings, and apply cable-fill and pulling calculations; it is not necessarily the exact outside diameter of every conduit material. The exact internal diameter can vary slightly with the raceway type and construction, so designers must use the applicable manufacturer data and the governing electrical-code tables when calculating allowable fill. For example, the National Electrical Code Chapter 9 tables provide raceway dimensions and cross-sectional areas for wiring-method calculations, while BICSI pathway design uses the trade-size designation when identifying conduit pathways and associated fittings. This designation provides a consistent way for communications designers, electrical trades, and installers to communicate the required raceway size. See the NFPA 70 (National Electrical Code) information page and BICSI's standards resources for the relevant governing design and installation references.

QUESTION NO: 29

When specifying metallic cable tray or ladder rack for a telecommunications space, which two of the following practices should be included? (Select two options.)

A. Support the pathway independently from the building structure

B. Maintain bonding continuity across metallic pathway sections

C. Support the pathway from sprinkler piping where convenient

D. Use ceiling-grid wire as the primary pathway support

E. Install pathway sections without allowance for fittings or expansion joints

ANSWER: A B

Explanation:

The pathway must be **supported independently from the building structure** using hardware and intervals appropriate for the pathway loading and installation conditions. Cable tray and ladder rack are not intended to be supported by ceiling-grid systems, unrelated pipes, or other building services. Proper independent support protects cable pathways from displacement and excessive deflection.

Metallic pathway sections must also maintain **bonding continuity**. Bonding connections across tray sections, fittings, and expansion joints help maintain an effective electrical continuity path and support the telecommunications bonding and grounding system. The design should coordinate pathway loading, support locations, access, clearances, bonding, and future cable growth. See NEMA cable tray installation guidelines and BICSI Standards.

QUESTION NO: 30 - (SIMULATION)

A program manager joins a team during its preparation phase. What should the program manager do lo obtain formal sponsor approval to begin the benefits delivery phase1?

Develop the program management plan based on the organization's strategic plan

D.
Write the program charter, including the program mission statement and stakeholder engagement plan

C.
Define a high-level program roadmap of milestones and schedules supported by a preliminary estimate

D.
Identify and document the anticipated program benefits in the benefits management plan.

ANSWER: See the explanation for the answer

Explanation:

Correct answer: Develop the **program management plan** based on the organization’s strategic plan.

During the program preparation phase, the program manager develops and integrates the program management plan. This plan aligns the program’s governance, delivery approach, benefits, roadmap, resources, risks, and stakeholder management with organizational strategy. It is the primary basis for obtaining the sponsor’s formal approval to proceed into benefits delivery.

The charter authorizes the program earlier, while the roadmap and preliminary benefits identification are inputs to planning rather than the final approval basis for beginning delivery.

QUESTION NO: 31

Which stakeholder of a project team is responsible to provide closeout documentation to the client? Architect

A. Authority

B. Having Jurisdiction (AHJ)

C. Construction Manager

D. ICT Distribution Designer/Project Manager

E. Architect

ANSWER: E

Explanation:

Architect is the appropriate stakeholder because the architect is the client-facing design professional who coordinates the project's final contract-administration and closeout deliverables. At project completion, closeout information is assembled, reviewed, and conveyed to the client as part of the final project record. This information commonly includes record documentation, operation and maintenance information, warranties, product data, test records, and other documents needed for occupancy, operation, and future changes. In an ICT project, the architect's coordination role is especially important because communications-system records must align with the overall building documentation and the client's operational needs. The architect may obtain portions of the closeout package from contractors, manufacturers, and specialist designers, but remains responsible for providing the coordinated closeout documentation to the client under the project-delivery process described by the question. This aligns with the architect's contract-administration role in the AIA general conditions, which address project closeout and final documentation, and with BICSI's emphasis on coordinated design and project-delivery responsibilities. See AIA A201 General Conditions of the Contract for Construction and BICSI RCDD certification information.

QUESTION NO: 32

XYZ Company hires you to make its transitioning procedure more effective in meeting close-out requirements. You review XYZ's transitioning procedures to eliminate any that do not belong in the close-out phase.

Which of the following procedures should you removed?

A. Managing the transition from the "As-Is" state to the "To-Be" or Target State

B. Reviewing the status of benefits with the stakeholders and program sponsor

C. Managing any required transition to operations

D. Documenting lessons learned in the organizational database

ANSWER: A

Explanation:

Managing the transition from the "As-Is" state to the "To-Be" or Target State should be removed because it is a delivery and change-implementation activity rather than a close-out activity. Moving an organization from its current operating model, infrastructure, or service arrangement to a defined future state requires active planning, coordination, implementation, stakeholder engagement, and control while the project or program work is still underway. It belongs within transition planning and execution, where the designer and project team ensure that the target environment is implemented and adopted as intended.

Close-out instead confirms that the work has been completed and accepted, that operational ownership is appropriately established, and that project knowledge and records are retained. At this point, the organization may validate transition outcomes and hand over remaining operational responsibilities, but it should not treat the broader transformation from the current state to the target state as a close-out procedure. PMI describes project closure as formally completing project or phase activities and transitioning the finished result as applicable; see PMI's guidance on closing projects. The relationship

between delivered outcomes and planned benefits is also addressed through benefits realization practices, as summarized by PMI.

QUESTION NO: 33

Which two of the following items should be included in copper cabling test documentation submitted for project acceptance? (Select two options.)

A. Link identifier

B. Test limit used

C. Installer’s preferred cable color

D. Manufacturer’s corporate address

E. General contractor’s project budget

ANSWER: A B

Explanation:

Link identifier is required because each test result must be traceable to the installed cabling link, its termination points, and the project administration records. A unique identifier allows the reviewer to correlate the result with outlet labels, patch panels, floor plans, and as-built documentation.

The test limit used is also required because the result must identify the applicable performance requirement against which the cabling was evaluated. The test documentation should indicate the selected cabling category or class limit and show a passing result for the applicable test configuration. Accurate test records provide the owner with evidence of compliance and support future troubleshooting and maintenance. See the Fluke Networks cable test-report guidance and TIA standards information.