PassQueen
a.k.a dumpsqueen.com

BICSI Registered Communications Distribution Designer - RCDDv14.1

BICSI RCDDv14.1

Version Demo

Total Demo Questions: 33

Total Premium Questions: 338

Buy Premium PDF

https://passqueen.com

support@passqueen.com

Topic Break Down

Topic	No. of Questions
Topic 1, Codes, Standards, and Regulations	12
Topic 2, Design Process	95
Topic 3, Telecommunications Spaces	21
Topic 4, Backbone Distribution Systems	21
Topic 5, Horizontal Distribution Systems	32
Topic 6, Outside Plant Distribution Systems	16
Topic 7, Firestopping	3
Topic 8, Bonding and Grounding	11
Topic 9, Administration	5
Topic 10, Mix Questions	122
Total	338

QUESTION NO: 1

What actions are taken in the process of developing and maintaining a program risk register?

A. Assign ownership of risks with appropriate responsibilities, document agreed-upon response strategies and provide the foundation for the risk management plan

B. Assign ownership of risks with appropriate responsibilities, document agreed-upon response strategies and identify the root cause of potential risks

C. Assign ownership of risks with appropriate responsibilities, document agreed-upon response strategies, and proactively manage program issues

D. Assign ownership of risks with appropriate responsibilities, document agreed-upon response strategies, and identify residual risks.

ANSWER: B

Explanation:

Assign ownership of risks with appropriate responsibilities, document agreed-upon response strategies and identify the root cause of potential risks is correct because a risk register is the central working record used to manage uncertainty throughout a program. It must establish clear accountability by naming a risk owner with the authority and responsibility to monitor the risk, perform follow-up activities, and report status. The register also records the selected response strategy so that planned avoidance, mitigation, transfer, acceptance, contingency, or escalation actions are understood and can be tracked. Identifying the underlying root cause is equally important: it helps the program team address the condition that creates the exposure rather than merely reacting to a possible effect. As the program progresses, the risk register is reviewed and updated to reflect changes in probability, impact, ownership, response actions, and status. This creates traceability from risk identification through treatment and monitoring, supporting informed decisions and effective governance. BICSI's professional practice framework recognizes project and program management as a key discipline for ICT infrastructure delivery; see BICSI. The Project Management Institute also describes risk management as the structured identification, analysis, response planning, and monitoring of project risks; see PMI's project risk management guidance.

QUESTION NO: 2

When estimating an ICT distribution designer project timeline schedule based on the scope of work which two scheduling methods use network diagrams lo integrate logical activities and identify critical paths on the project? (Select two options.)

A. If This Then That (IFTT)

B. Gantt Chart

C. Work Breakdown Structure (WBS)

D. Critical Path Method (CPM)

E. Program Evaluation Review Technique (PERT)

ANSWER: D E

Explanation:

Critical Path Method (CPM) and Program Evaluation Review Technique (PERT) are network-based project scheduling methods. Both represent project work as logically related activities, showing the sequence and dependencies that must be managed to deliver the project. This network logic enables the designer or project manager to identify the critical path: the chain of dependent activities that establishes the earliest possible project completion date. Activities on that path have no scheduling flexibility without affecting the overall completion date, making the method particularly useful when coordinating ICT design deliverables, reviews, procurement activities, construction interfaces, and installation milestones.

Critical Path Method (CPM) is generally applied where activity durations can be estimated with reasonable certainty and supports schedule development, monitoring, and control. Program Evaluation Review Technique (PERT) uses network logic as well, but is especially useful where durations are uncertain because it can incorporate optimistic, most likely, and pessimistic duration estimates. In either case, the network diagram is the basis for analyzing precedence relationships and

calculating the critical path. The Project Management Institute describes critical-path scheduling and network-diagram concepts in its Critical Path Method overview; PERT concepts are also summarized by the Encyclopaedia Britannica PERT reference.

QUESTION NO: 3

In specifying labels and pruned tags that meet Underwriters Laboratories (UL) 969 Standard, marking and labeling systems are provided following the listed metrics. Which two of the following are REQUIRED for the UL standard? (Select two options.)

A. Adhesion test

B. Thickness test

C. Texture test

D. Durability test

E. Visual inspection

ANSWER: A E

Explanation:

Adhesion test and **Visual inspection** are required elements of evaluating a marking and labeling system under UL 969. The standard is concerned with whether a label or marking remains securely attached and legible throughout its intended service life, including after exposure to applicable environmental and handling conditions. Adhesion evaluation verifies that the label material, adhesive, and substrate combination continue to bond adequately after the specified conditioning or exposure sequence. This is essential because a label that detaches can eliminate required safety, identification, or installation information.

Visual inspection is also part of the evaluation because the condition of the completed marking must be assessed following the applicable tests. Inspection identifies observable changes that affect the marking system's suitability, such as lifting, curling, cracking, loss of printed information, or other deterioration that compromises the required marking. Together, adhesion testing and post-test visual examination establish that the submitted labeling system performs as a complete, durable system rather than merely as an individual material. UL describes its labeling and marking-system services at UL Solutions: Labeling and Marking Systems; the UL 969 standard listing is available from UL Standards & Engagement.

QUESTION NO: 4

While setting up a program's infrastructure and plan, a program management team develops documents and processes that provide commonality and consistency throughout the program's components. What should the team also prepare, if not already provided by the organization's assets?

A. Breakdowns such as the program work breakdown structure (PWBS) component project milestones and budgets that transform top-level planning into fragments relevant to the components

B. Industry standards that provide guidance to the component project managers on how to adapt their detailed planning to the program's master plan

C. Documents that enable level-adequate aggregation and consolidation of component/program information and forecasting

D. Files, filing structures, and templates for knowledge repositories that contain centrally stored and commonly maintained program data

ANSWER: D

Explanation:

Files, filing structures, and templates for knowledge repositories that contain centrally stored and commonly maintained program data should be prepared when equivalent organizational assets are not already available. A program brings

together related components whose managers need consistent access to approved information, such as program plans, schedules, performance data, decisions, risks, issues, change records, reports, and lessons learned. Establishing a common repository structure and usable templates enables the program management team to collect, maintain, retrieve, aggregate, and communicate this information in a controlled and repeatable manner across all components. It also supports continuity when staff or component teams change, because the program's records are organized centrally rather than being retained only in individual project locations or personal files. This is consistent with program-management practice: program infrastructure supplies the shared management environment, processes, and information arrangements needed to coordinate component work and sustain program-level governance. Organizational process assets may already provide such repository conventions and templates; where they do not, the program team needs to establish them for the program. See PMI's overview of program management at PMI: What Is Program Management? and its standards resources at The Standard for Program Management.

QUESTION NO: 5

A program to implement a company's new system is nearing completion and the program manager attempts to close the program However, despite training provided to the operational staff on the new system, there is concern that the defined expected benefits will not be fully realized.

To prevent this concern in the future, which of the following should occur?

A. Collaboration with the operational staff to develop the benefits sustainment plan

B. Communication of the new capabilities" benefits to the operational staff

C. Development and execution of a benefits transition plan to prepare the operational areas

D. Identification of the risk in the program risk register and development of a plan to address the risk

ANSWER: C

Explanation:

Development and execution of a benefits transition plan to prepare the operational areas is correct because program benefits are ultimately realized through operational adoption and sustained use after the program's deliverables are handed over. Training is one important transition activity, but it alone does not demonstrate that the receiving organization is ready to own the new capabilities, alter its processes, assign accountable benefit owners, provide support, and measure benefit performance. A benefits transition plan establishes the structured handoff from the program to business-as-usual operations. It should define operational-readiness activities, ownership and accountability for each expected benefit, acceptance criteria, required process and support changes, performance measures, and follow-up actions. Executing that plan before program closure gives the operational areas the practical preparation and formal responsibility needed to convert the delivered system into the intended business outcomes. This aligns program closure with benefits realization rather than treating delivery and training as sufficient evidence that benefits will occur. PMI identifies benefits realization as a core program-management responsibility and describes the organizational practices needed to sustain value after delivery. See PMI's The Standard for Program Management and PMI guidance on benefits realization management.

QUESTION NO: 6

Which two of the following are ADVANTAGES of aerial pathways? (Select two options.)

A. Quick to install

B. Has a low initial installation cost

C. Affect the aesthetic appearance of the property

D. Economical over a long life

E. Readily accessible for maintenance

ANSWER: A E

Explanation:

Quick to install and **Readily accessible for maintenance** are the key advantages of an aerial pathway. An aerial route can generally be deployed without the excavation, duct-bank construction, directional boring, restoration, and utility-location work associated with an underground pathway. Once required pole-line arrangements, clearances, permits, and safety controls are in place, cable can be installed by lashing or placing it on the supporting strand, making aerial construction a practical choice when service must be provided rapidly.

Because the cable and supporting hardware are above ground, technicians can visually inspect the route and reach spans, attachments, and terminations without opening handholes or excavating a buried route. This supports fault isolation, routine inspection, repairs, and cable additions, subject to proper qualified-worker procedures and applicable electrical-safety requirements. In a communications-distribution design, these benefits must still be balanced with coordination for pole ownership, loading, clearance, weather exposure, and applicable codes. BICSI standards resources are available at BICSI Standards, and aerial communications-space requirements are addressed within the National Electrical Safety Code framework maintained by IEEE.

QUESTION NO: 7

Telecommunications cabling (e.g., voice, data, video, security, audio, control) can be damaged during the construction phases of rough-in, drywall installation, and during the siding of the exterior. For these reasons, telecommunications cabling shall be acceptance tested. Acceptance testing includes visual examination and verification of all cabling and qualification of copper cabling for data cabling or certification of copper or optical fiber cabling for data cabling. Verification testing is generally performed in which two of the following steps? (Choose two.)

A. Post the acceptance of the construction contract once the Project Manager has approved this phase

B. Prior to the installation of insulation and drywall

C. Prior to the installation of the cable tray system for spurs, points that would or could damage the cable infrastructure

D. During the trim-out stage of the cabling after painting

E. Post the implementation of the construction

ANSWER: B D

Explanation:

Prior to the installation of insulation and drywall is a correct verification-test point because it occurs after rough-in cabling has been placed but while the pathways and cable runs remain accessible. Testing at this stage establishes that installed pairs, conductors, terminations, and basic end-to-end connectivity are intact before these components are concealed. It also enables prompt identification and repair of construction-related damage or installation defects without requiring destructive access to finished surfaces.

During the trim-out stage of the cabling after painting is also correct because trim-out is the appropriate later construction checkpoint for verifying cabling following completion of work that can affect outlets, cables, and terminations. A second verification at this point confirms that the cabling remains operational after the intervening building activities and before final turnover. This staged approach supports acceptance testing by documenting installation condition at an accessible pre-cover stage and again near completion, helping ensure the installed telecommunications infrastructure is ready for the applicable qualification or certification testing. BICSI's standards and publications support structured installation, inspection, and testing practices; see BICSI Standards and BICSI Cabling Installation Program.

QUESTION NO: 8

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 first needs a reliable understanding of who can affect, be affected by, or perceive an impact from the program. In a complex cross-functional program involving several technologies and workstreams, stakeholders may have different objectives, priorities, levels of authority, and degrees of support or resistance. Recording their positions relative to the program provides the foundation for stakeholder analysis, including assessment of each stakeholder's interests, influence, potential impact, and current engagement level.

This documented analysis enables the program manager to determine where expectations conflict, prioritize engagement, and develop suitable communication and relationship-management approaches. The stakeholder register is a living program artifact: it should be refined as additional stakeholders are identified and as stakeholder positions or influence change during the program lifecycle. Establishing this baseline before selecting detailed engagement actions supports coordinated decision-making across the program's components and workstreams. PMI describes stakeholder management as identifying stakeholders, analyzing their interests and influence, and developing appropriate management strategies; see PMI's stakeholder management guidance and PMI's standards and PMBOK resources.

QUESTION NO: 9

A program has been established and preparation is complete. Component projects are planned as a part of which of the following?

A. Program definition phase

B. Program formulation

C. Program planning

D. Program delivery phase

ANSWER: D

Explanation:

Program delivery phase is correct because it follows establishment of the program and completion of the preparatory work, moving the program into coordinated implementation. At this point, the program's intended outcomes are translated into manageable component projects and related activities. Planning those projects includes defining their scope, schedules, resources, dependencies, governance interfaces, and the controls needed to coordinate them with the overall program roadmap. In a communications-infrastructure context, this supports orderly delivery of the facilities, pathways, spaces, cabling, and other interdependent work required to realize the program's business objectives.

Program-level delivery is not merely the execution of isolated projects. It maintains alignment among component projects, manages interfaces and sequencing, tracks benefits and risks, and coordinates decisions that affect the program as a whole. Therefore, once the program is established and preparation is complete, component-project planning is an essential activity within the Program delivery phase. This sequencing is consistent with program-management practice, which treats programs as coordinated groups of related projects managed to obtain benefits and control not available from managing projects independently. BICSI's standards and manuals provide the structured design and implementation guidance used for communications-distribution programs and projects; see BICSI Standards and the PMI Standard for Program Management.

QUESTION NO: 10

A company's marketing department Tails an internal compliance audit To comply with the auditor's remediation plan the legal department mandates that a content management system (CMS) be implemented After initiating the program for CMS implementation the program manager discovers that the marketing department has already preselected which CMS technology will be implemented.

What should the program manager do to ensure the success of the program?

A. Meet with the vice president of purchasing to discuss the risks associated with preselecting a solution before the requirements have been gathered

B. Host a kick-off meeting, request preliminary requirements from the marketing department, conduct a design session present the steering committee with a solution that meets the requirements: and meet with interested vendors

C. Ask a senior marketing executive to act as the program sponsor and participate on the steering committee: require steering committee representation from the IT legal, and other key departments, validate that the chosen solution meets the requirements

D. Initiate the program and begin a formal request for proposal (RFP) to validate the chosen solution and gam the confidence of the legal department

ANSWER: C

Explanation:

“Ask a senior marketing executive to act as the program sponsor and participate on the steering committee: require steering committee representation from the IT legal, and other key departments, validate that the chosen solution meets the requirements” is correct because the situation requires effective program governance, accountable sponsorship, and cross-functional decision-making before committing the organization to implementation. The compliance finding and legal mandate establish a business and regulatory driver, while Marketing’s preselection introduces a significant governance concern: the technology choice must be demonstrably aligned with the complete set of business, legal, technical, security, operational, and integration requirements.

A senior Marketing sponsor supplies the authority to align the affected business unit, secure decisions and resources, and maintain ownership of intended benefits. A steering committee with Marketing, IT, Legal, and other affected stakeholders provides the formal forum for oversight, risk escalation, requirements alignment, and approval of major program decisions. Most importantly, validating the selected CMS against agreed requirements preserves the possibility that the existing choice is suitable while ensuring that adoption is evidence-based, compliant, supportable, and consistent with enterprise architecture and procurement obligations. This approach reflects program-management governance principles that connect strategic objectives, stakeholder accountability, and benefits realization. See the PMI Standard for Program Management and PMI’s overview of program governance best practices.

QUESTION NO: 11

One of the constituent project managers asks a new program manager to obtain approval for an additional key project requirement. A tolerance range is set, if the tolerance range is too narrow on a program what effect will multiple minor changes have on the program?

A. Reduction in program quality

B. Degradation of program communications

C. Reduction in program risk

D. Slow down in program implementation

ANSWER: D

Explanation:

Slow down in program implementation is correct because tolerances establish the amount of variation that can be managed within delegated authority before escalation or formal approval is needed. When the permitted tolerance range is overly narrow, changes that are individually small are more likely to exceed it. Multiple minor changes therefore create

repeated requests for review, impact assessment, decision making, and authorization by the program manager, governance board, sponsor, or other authority. This increases administrative effort and introduces decision-cycle delays across constituent projects. It can also interrupt planned work while teams wait for direction or approved updates to program plans, baselines, requirements, schedules, or resource commitments. At program level, change control must balance appropriate governance with efficient delivery: tolerances should provide meaningful control boundaries while allowing routine, low-impact matters to be resolved at the appropriate management level. The Project Management Institute describes program management as coordinated management of related projects and other work to obtain benefits not available from managing them separately; effective governance and delegated decision authority are essential to that coordination. See the Project Management Institute overview of project management and PMI's The Standard for Program Management.

QUESTION NO: 12

The type of apparatus housed in ERs vary greatly in size, purpose and function. Which two of the following active equipment is included? (Choose two.)

A. Cross-connect facilities

B. Telecommunications equipment

C. Environmental controls

D. Lighting controls

E. Building system equipment

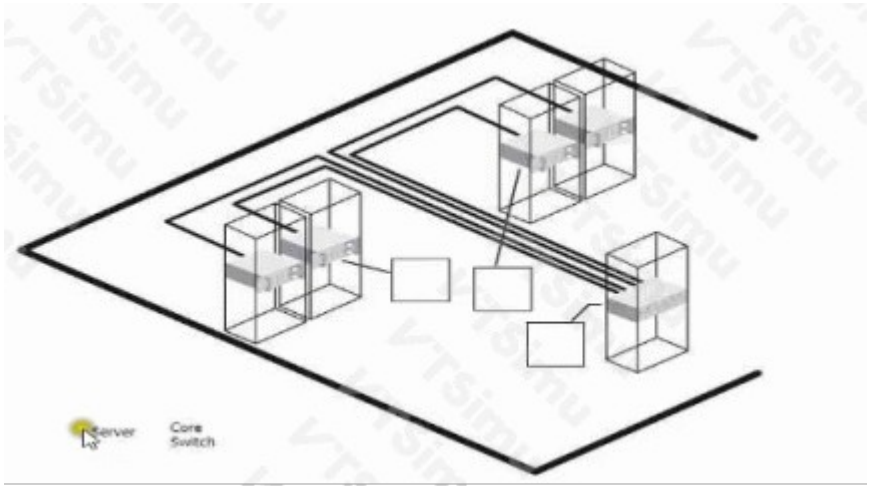
ANSWER: B E

Explanation:

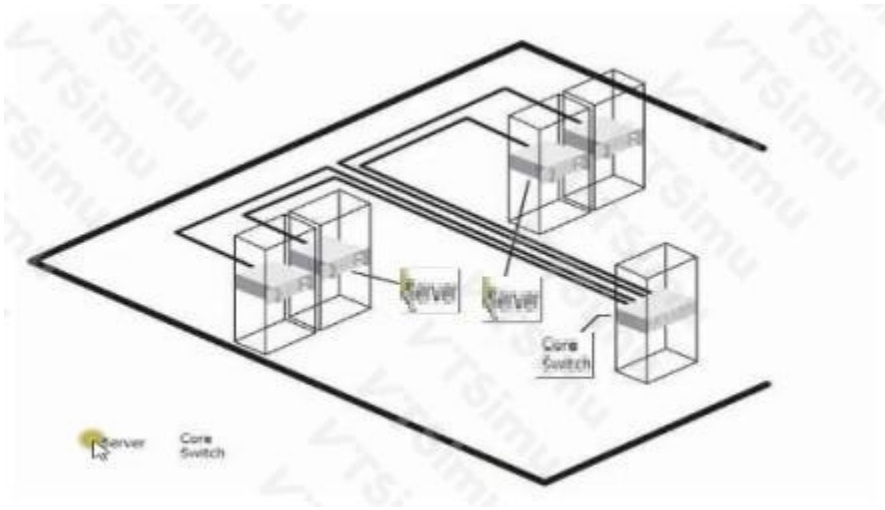
Telecommunications equipment is active equipment because it requires electrical power and performs communications functions such as switching, routing, transmission, processing, or delivery of telecommunications services. An equipment room is a centralized space intended to accommodate this type of equipment and its supporting infrastructure. Building system equipment is also appropriately included because modern intelligent buildings commonly place active systems supporting building operations in, or interconnected through, the equipment room. These systems may support functions such as building automation, security, access control, fire/life-safety communications, and other operational technology applications. Their presence reflects the equipment room's role as a controlled, centrally managed space for active electronic systems that serve the building or campus. The exact apparatus in an equipment room depends on the facility's size, service requirements, and operational needs, but telecommunications equipment and building system equipment both fit the active-equipment classification. BICSI's standards resources describe the infrastructure framework used to plan spaces and pathways for these communications and building-technology systems; see BICSI Standards. Related telecommunications-infrastructure standards information is available from the Telecommunications Industry Association.

QUESTION NO: 13 - (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 upper drop locations should be identified as **Server**, and the lower-right drop location should be identified as **Core Switch**. This placement represents a conventional data-center topology in which servers are the endpoint compute resources attached through structured cabling to the network infrastructure, while the core switch is the centralized switching element that aggregates connectivity between equipment groups. In the diagram, the server labels belong in the two boxes located beneath the parallel cable runs extending from the left-side and upper equipment areas. Those positions represent the server resources associated with those equipment groups.

The core-switch label belongs in the box nearest the right-side cabinet. That cabinet is visually the network aggregation point: multiple parallel pathways converge toward it, and the depicted horizontal device in that rack is the component providing the common switching connection. A core switch serves as the high-capacity backbone or aggregation layer for communications traffic within the data center, connecting server-facing portions of the topology and providing the principal network interconnection path. This distinction between compute endpoints and centralized network infrastructure is fundamental to documenting a data-center telecommunications design.

Accurately identifying these functional roles is important because the design documentation must clearly distinguish servers, which host applications and services, from switches, which forward traffic among connected systems. BICSI's data-center resources describe the importance of coordinated telecommunications infrastructure planning and documentation for reliable data-center operation; see BICSI Data Center Standards. For additional networking context, Cisco's overview of data-center network architecture explains the aggregation role of switching infrastructure: Cisco Data Center Networking.

QUESTION NO: 14

When a large number of cables delivering Power over Ethernet are installed in a pathway, what condition is of GREATEST concern?

A. Temperature rise within cable bundles

B. Increased optical return loss

C. Loss of fiber polarity

D. Reduced conduit grounding continuity

E. Increased radio-frequency radiation from the cable jacket

ANSWER: A

Explanation:

Temperature rise within cable bundles is correct. PoE cable bundles can generate heat because DC current flows through the copper conductors. As bundle size and delivered power increase, the temperature of cables near the center of a bundle can rise. Excessive temperature can affect insertion loss, cable performance margins, and the long-term condition of cable insulation.

The designer should coordinate bundle size, cable category, conductor size, ambient temperature, pathway fill, and installation practices with the applicable cabling standard and manufacturer requirements. See IEEE 802.3 Ethernet Working Group and BICSI Standards.

QUESTION NO: 15

A program manager concurrently implements a software program at four client locations. The client's objective is to maintain quality while shortening the software implementation timeline

What key elements should be included in the benefits register to achieve this goal?

A. Plans for tracking and communicating risks associated with the program

B. Plans for conducting program quality assurance and control on a regular basis

C. Plans for program schedule control to meet the shorter timeline

D. Plans for defining metrics and key performance indicators (KPIs), and procedures to measure benefits

ANSWER: D

Explanation:

Plans for defining metrics and key performance indicators (KPIs), and procedures to measure benefits is correct because a benefits register is used to identify expected program benefits and establish how their realization will be measured, monitored, and reported. In this situation, the desired benefits are both a reduced implementation timeline and sustained software-delivery quality across all four locations. Clear, measurable indicators allow the program manager to translate those objectives into objective targets, such as implementation-cycle duration, milestone achievement, defect density, acceptance-test results, rework levels, or customer acceptance measures. The register should also define the measurement method, baseline, target, measurement frequency, accountable benefit owner, data source, and realization timing. These details make it possible to evaluate whether accelerating implementation is genuinely producing the intended business outcome without degrading quality. Benefit measures must be consistently applied across locations so that the manager can aggregate results, identify trends, and take timely corrective action when results diverge from benefit targets. This aligns with PMI's description of benefits management as defining, tracking, and sustaining program benefits and value. See PMI's Program Benefits Management overview and its benefits realization management framework.

QUESTION NO: 16

What is the MAIN concern with a poke-thru installation?

A. The compatibility with the telecommunications outlet/connector

B. The structural integrity of the floor assembly

C. The fact that it is beneath the floor

D. The diameter of the poke-thru device

ANSWER: B

Explanation:

The structural integrity of the floor assembly is the main concern because a poke-thru device requires a core-drilled penetration through a finished floor, commonly a concrete slab. The designer must ensure that the proposed opening and its location do not compromise the slab's load-carrying performance, disturb reinforcing steel or post-tensioning tendons, interfere with embedded services, or conflict with the building's structural design. This requires coordination with the structural engineer and, where applicable, review of as-built information and scanning procedures before drilling. The poke-thru system must also be selected and installed in accordance with its listed application and the manufacturer's instructions so that the completed floor assembly continues to perform as intended. In practice, early coordination is especially important in post-tensioned slabs, where penetrating a tendon can create a serious safety hazard and materially impair the structure. BICSI design work therefore treats floor penetrations as a multidisciplinary coordination issue involving telecommunications, architectural, electrical, fire/life-safety, and structural stakeholders. BICSI's standards resources provide the governing telecommunications-infrastructure context, while building-code requirements address the broader design and construction controls for structural work. See BICSI Standards and the International Building Code.

QUESTION NO: 17

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:

The correct kickoff-meeting elements are the **RFI process** and **Project start and completion dates**. Establishing the RFI process at the beginning of installation gives the communications designer, installing contractor, general contractor, and other project stakeholders a defined path for documenting questions, assigning responsibility, tracking responses, and incorporating approved clarifications into the work. This is especially important where coordination with other building systems, pathways, spaces, and construction sequencing may affect the telecommunications scope.

Confirming project start and completion dates establishes the baseline schedule for the installation effort. The designer needs this information to coordinate site activities, verify that prerequisites and access are available when needed, align review and inspection activities with construction milestones, and support orderly project closeout. Clear milestone dates also allow the telecommunications work to be coordinated with the general contractor's overall construction schedule and with the work of other trades. These topics create the communication and scheduling framework needed for a controlled installation start. BICSI's standards and best-practice resources emphasize coordinated infrastructure design and implementation; see the BICSI Standards page. General construction-management guidance on kickoff planning and schedule coordination is also available from the Whole Building Design Guide.

QUESTION NO: 18

When designing horizontal pathways, the ICT distribution designer should consider the design's ability to (Select two options.)

A. handle only the day one needs as the future is unknown.

B. minimize occupant disruption when horizontal pathways are accessed.

C. handle at least 3 different cabling media types.

D. accommodate cabling changes

E. accommodate at least 50 percent future growth

ANSWER: B D

Explanation:

Horizontal pathways should be designed to support the ongoing operation and adaptability of the telecommunications cabling system throughout the building life cycle. **Minimize occupant disruption when horizontal pathways are accessed.** is correct because accessible, maintainable pathway designs allow adds, moves, changes, inspection, and cable maintenance to be completed with as little effect as practicable on occupants and building operations. This is particularly important where pathways serve active work areas and where access may otherwise require disruptive building work.

Accommodate cabling changes is also correct because horizontal distribution infrastructure must be adaptable to evolving ICT requirements. Pathways, spaces, and their access provisions should enable cables to be installed, removed, or modified without compromising the pathway system or requiring extensive renovation. Designing for change supports practical administration of the cabling plant and preserves the usefulness of the installed infrastructure as technologies and workspace needs develop. BICSI's structured-cabling guidance emphasizes infrastructure that is planned, installed, and managed for reliable long-term service and changing communications needs. See BICSI Standards and BICSI RCDD Credential.

QUESTION NO: 19

What is the conductor called that bonds a telecommunications grounding busbar (TGB) to the telecommunications main grounding busbar (TMGB)?

A. Telecommunications bonding backbone (TBB)

B. Equipment grounding conductor (EGC)

C. Grounding electrode conductor (GEC)

D. Bonding jumper

E. Service neutral conductor

ANSWER: A

Explanation:

The **telecommunications bonding backbone (TBB)** is the conductor that bonds telecommunications grounding busbars together and establishes a common bonding path between a TGB and the TMGB. This bonding arrangement supports an equipotential grounding system for telecommunications equipment, racks, cabinets, metallic pathways, and associated components.

The TBB is part of the telecommunications bonding infrastructure and is not a branch-circuit equipment grounding conductor or a grounding electrode conductor. Its design must be coordinated with the building electrical grounding system and applicable codes. See TIA Standards and BICSI Standards.

QUESTION NO: 20

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

A. Cross-connect facilities

B. Telecommunications equipment

C. Environmental controls

D. Lighting controls

E. Building system equipment

ANSWER: B E

Explanation:

Telecommunications equipment and building system equipment are active equipment categories that may be housed in an equipment room (ER). Telecommunications equipment includes powered electronics that enable, process, route, switch, or otherwise support telecommunications services. Depending on the facility, this can include carrier-service termination equipment, voice or data switching equipment, routers, servers, wireless-support electronics, and related powered communications platforms. The ER is designed to accommodate these critical systems with appropriate pathways, space, grounding and bonding, power, and environmental provisions.

Building system equipment also consists of active, powered equipment used to support and manage building operations. In an intelligent-building context, an ER may support equipment for systems such as building automation, security, access control, surveillance, fire/life-safety interfaces, and other operational technology platforms. These systems commonly require network connectivity and centralized electronic equipment, making the ER an appropriate location where the design and operational requirements permit. BICSI's telecommunications-distribution design guidance recognizes the need to coordinate telecommunications spaces with the equipment and building systems they support. See BICSI Standards and the Telecommunications Industry Association standards resources.

QUESTION NO: 21

An ICT distribution designer is coordinating with local agencies for an upcoming campus improvement project which could affect the design. Which two of the following listed items will MINIMIZE design changes once the project begins? (Choose two.)

A. Identification and agreement of conduit pathway routes

B. Hand off of documentation to project manager

C. Identification of maintenance holes, hand holes locations

D. Approval of budget by chief financial officer (CFO)

E. Approval of permit by AHJ - local Fire Marshal

ANSWER: A C

Explanation:

Identification and agreement of conduit pathway routes and **Identification of maintenance holes, hand holes locations** are the design activities that most directly reduce later changes. Early confirmation of underground pathway routes with the affected agencies establishes where the communications duct bank can be installed relative to roadwork, utilities, property boundaries, drainage, landscaping, and other planned campus improvements. This coordination permits conflicts and required separations to be resolved before construction documents and installation sequencing are finalized.

Similarly, establishing the locations of maintenance holes and hand holes early confirms the access infrastructure needed for pulling, splicing, testing, maintenance, and future cable additions. These structures must be coordinated with grading, traffic areas, utility corridors, drainage, accessibility, and the planned conduit routes. Their locations also affect conduit segment lengths, bend layout, cable-pulling plans, and the overall outside-plant topology. Agreement on both the pathways and access points creates a coordinated physical infrastructure design that can accommodate the campus project rather than

requiring redesign after work is underway. This reflects BICSI outside-plant design practice, in which pathway planning and access-structure placement are foundational design decisions. See the BICSI standards information and the BICSI RCDD credential overview.

QUESTION NO: 22

In a RFI, an ICT distribution designer instructs the contractor to test all the fibers In a PON Installation. Which of the following testing requirements does the designer include?

A. Uni-directional 850 nm and 1300 nm

B. Bi-directional 850 nm and 1300 nm

C. Uni-directional 1310 nm and 1550 nm

D. Bi-directional 1310 nm and 1550 nm

ANSWER: D

Explanation:

Bi-directional 1310 nm and 1550 nm is the appropriate requirement for acceptance testing of the singlemode optical fiber infrastructure used by a passive optical network (PON). PON outside-plant and building distribution links normally use singlemode fiber, whose standard operating and test windows include 1310 nm and 1550 nm. Testing at both wavelengths confirms attenuation performance across the relevant transmission bands and helps identify wavelength-dependent losses caused by conditions such as macrobends, poor splices, or contaminated/damaged connections.

Bi-directional testing is important because an OTDR trace and measured loss can differ when the test direction is reversed, particularly where splice loss is affected by differences in the fibers being joined. Measuring from both ends provides a more complete characterization of each fiber path and supports accurate acceptance documentation. The designer should therefore require bidirectional measurements at 1310 nm and 1550 nm, along with records that identify the tested fiber, wavelength, direction, measured loss, and test equipment. This aligns with industry fiber-testing practice for installed singlemode cabling and with the BICSI emphasis on verifiable infrastructure performance. See the Fiber Optic Association's guidance on testing optical fiber links and BICSI Standards.

QUESTION NO: 23

Which two of the following items MUST be included in a detailed SoW? (Select two options.)

A. What type of work needs to be performed

B. A general description of work to be performed

C. Who must approve the Scope of work

D. How the contract performance will be evaluated/judged

E. When the work will start

ANSWER: A D

Explanation:

A detailed scope of work must clearly state *what type of work needs to be performed*, because this establishes the contractor's required effort, technical activities, boundaries, deliverables, and any applicable standards. In telecommunications infrastructure projects, this level of definition allows the owner, designer, installer, and other project stakeholders to develop a common understanding of the required work and manage changes against an agreed baseline.

A detailed scope of work must also define *how the contract performance will be evaluated/judged*. This provides measurable acceptance or performance criteria for verifying that the completed work, documentation, testing, and deliverables satisfy the stated project requirements. Clear evaluation criteria support objective inspection and acceptance, help establish

accountability, and enable closeout decisions to be based on documented requirements rather than subjective interpretation. These components align with established contracting practice: a scope of work describes required tasks and outcomes, while acceptance criteria specify the basis for determining whether performance is satisfactory. See the U.S. Department of Defense's FAR guidance on describing agency needs and the Project Management Institute's scope-management guidance.

QUESTION NO: 24

Which two of the following apply to a consolidation point in a horizontal cabling system? (Select two options.)

A. Only one consolidation point is permitted in a horizontal cable run

B. It may be used as a horizontal cross-connect

C. It shall be located in a permanent, accessible location

D. It shall be located inside the work area outlet box

E. It permits the horizontal cable length to exceed 90 m (295 ft)

ANSWER: A C

Explanation:

A consolidation point is an optional interconnection location used to provide flexibility in areas such as open offices. Only **one consolidation point is permitted in a horizontal cable run**, because additional interconnections increase channel complexity and can affect transmission performance and administration. The consolidation point must also be **located in a permanent, accessible location** so that it can be administered, maintained, and accessed for future changes without damaging building finishes or disrupting occupants.

A consolidation point is not intended to function as a cross-connect, and it should not be placed where access is obstructed by fixed furniture or other permanent building elements. See TIA Standards and BICSI Standards.

QUESTION NO: 25

What is a passive optical network (PON)?

A. A point-to-multipoint network architecture in which unpowered optical splitters are used to enable a single optical fiber strand to serve multiple end-points.

B. A point-to-point network architecture in which powered optical splitters are used to enable a single optical fiber strand to serve multiple end-points.

C. A point-to-point network architecture in which unpowered optical splitters are used to enable a single optical fiber strand to serve multiple end-points.

D. A point-to-multipoint network architecture in which powered optical splitters are used to enable a single optical fiber strand to serve multiple end-points.

ANSWER: A

Explanation:

A passive optical network is correctly defined as "A point-to-multipoint network architecture in which unpowered optical splitters are used to enable a single optical fiber strand to serve multiple end-points." The defining feature is the passive optical distribution network between the optical line terminal at the provider or equipment end and multiple optical network units or terminals at users' locations. Passive splitters divide downstream optical signals among the endpoints and combine upstream signals without requiring electrical power, active electronics, or environmental support in the outside plant. This passive, shared-fiber arrangement supports efficient fiber utilization and is a core reason PON is widely used for fiber-to-the-premises and similar access architectures. The point-to-multipoint topology is integral: one feeder fiber can be optically split to serve many subscribers or work areas, subject to the optical power budget, splitter loss, distance, and system design limits. ITU-T describes gigabit-capable PON systems as optical access networks using passive optical distribution networks;

see ITU-T Recommendation G.984.1. A practical overview of the feeder, splitter, and endpoint structure is also provided by the FTTH Council Europe FTTH Handbook.

QUESTION NO: 26

Conducted coupling may affect electronic devices primarily through which two of the following means'? (Select two options.)

A. inductive coupling (by magnetic fields)

B. Input signal lines

C. Output signal lines

D. Optical signal lines

E. Capacitive coupling (by electric fields)

ANSWER: B C

Explanation:

Input signal lines and **Output signal lines** are the principal paths by which conducted electromagnetic interference can enter or leave electronic equipment. Conducted coupling occurs when unwanted electrical energy travels on a metallic conductor rather than propagating through free space. Signal cables attached to a device can therefore carry common-mode or differential-mode noise into its circuitry, where the disturbance can affect receiver thresholds, reference potentials, timing, data integrity, or control functions. The same paths can also conduct disturbance energy from equipment onto connected cabling, potentially affecting equipment at the far end of the link. Input and output signal interfaces are especially relevant because they commonly connect separate items of equipment and may extend beyond an enclosure, creating a practical route for externally generated noise and internally generated emissions. EMC design consequently considers the complete signal-cable path, including grounding/bonding, shielding where applicable, connector design, filtering, and cable routing. This distinction between interference conducted on cables and interference radiated through space is fundamental to EMC evaluation and mitigation. See the International Electrotechnical Commission’s overview of electromagnetic compatibility and the FCC’s equipment authorization resources for EMC regulatory context.

QUESTION NO: 27

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:

“Document the reviewer's status and/or comments” is required to maintain a clear, traceable record of the submittal review cycle. The designer needs to capture the disposition, review annotations, revision needs, and related communications so that the design team can respond accurately, coordinate affected work, and demonstrate that reviewer input was addressed. This record also supports version control and helps prevent an earlier, uncorrected product-data submittal from being used inadvertently.

“Review the contract requirements and revise the submittal to comply with these requirements” is the appropriate corrective action when a reviewer rejects a submittal or provides comments. Submittals are evaluated for conformance with the project’s specified requirements; therefore, the designer should compare the reviewer feedback with the contract documents, resolve deficiencies, revise the material as necessary, and resubmit it through the established process. This preserves the contractual design intent while ensuring that the ICT system products and documentation being approved are suitable for the installation. BICSI’s standards and publications emphasize using documented requirements and coordinated design documentation throughout the ICT design process; see BICSI Standards. For general construction submittal-process context, see the AIA discussion of submittals.

QUESTION NO: 28

What is the MINIMUM distance from the edge of a pool or other water hazards for a weatherproof enclosure?

A. 1 m (3 ft)

B. 2 m (7 ft)

C. 4 m (13 ft)

D. 6 m (20 ft)

E. 10 m (30 ft)

ANSWER: D

Explanation:

The minimum distance is **6 m (20 ft)** from the edge of a pool or other water hazard. This separation is a communications-infrastructure siting practice intended to limit the likelihood that an enclosure, its cabling, or personnel servicing it will be exposed to splash, standing water, flooding, or the heightened electrical risk associated with pool environments. “Weatherproof” describes an enclosure’s ability to resist environmental exposure; it does not eliminate the need to select a location that provides appropriate physical separation from water hazards. The 6 m (20 ft) distance also provides a practical service and maintenance zone so technicians can access the enclosure without working immediately adjacent to the pool edge. The designer must still coordinate the final installation with the authority having jurisdiction, applicable electrical requirements, bonding and grounding requirements, manufacturer instructions, and the specific environmental conditions of the site. Pool-related electrical installations are governed by the adopted electrical code and local enforcement requirements; NFPA provides information on the National Electrical Code at NFPA 70. For communications distribution design guidance and related reference material, consult BICSI’s Telecommunications Distribution Methods Manual resources at BICSI Standards and Publications.

QUESTION NO: 29

A program completes all component projects and all identified benefits are being delivered However, the program sponsor is concerned that long-term benefits may not meet organizational performance parameters

To ensure the realization of long-term benefits what should the program manager use?

A. Benefits register

B. Benefits sustainment plan

C. Benefits management plan

D. Benefits transition plan

ANSWER: B

Explanation:

Benefits sustainment plan is correct because the program has completed its component projects and is now concerned with preserving benefit performance after delivery and transition into ongoing operations. A sustainment plan establishes

how the organization will continue to own, measure, monitor, and support the delivered capabilities so that benefits remain aligned with the defined organizational performance parameters over time. It identifies the operational accountabilities, performance measures, review cadence, governance or escalation paths, required resources, and corrective actions needed when benefit performance trends below expectations. This gives the sponsor confidence that benefits realization does not end merely because project outputs have been delivered; instead, it continues through a managed operational period in which the intended business outcomes are maintained. In program-management practice, benefits realization includes both achieving benefits and sustaining them after transition, with responsibility progressively moving to operational owners while the program ensures an effective handoff. PMI describes benefits realization as encompassing the identification, execution, and sustainment of benefits throughout and beyond the initiative life cycle. See PMI's Benefits Realization Management Framework and its overview of Benefits Realization Management.

QUESTION NO: 30

A program governance board mandates that phase gate reviews must be held so each component project can be reviewed and individually authorized to proceed to the next phase Tracking and reporting of actual benefits realized is one part of the review

What is the other part of the review"?

A. Tracking and reporting on benefits management plan

B. Identifying factors Influencing delivery of benefits

C. Demonstrating that other stage gate requirements have been met

D. Gathering additional stakeholders' requirements

ANSWER: B

Explanation:

Identifying factors Influencing delivery of benefits is correct because a program phase-gate review must assess both benefit performance achieved to date and the conditions that affect whether planned benefits can continue to be delivered. Reporting actual realized benefits provides governance with measurable evidence of progress against the benefits-management approach. Identifying influencing factors adds the forward-looking governance assessment: the board considers dependencies, assumptions, risks, organizational changes, resource conditions, stakeholder adoption, and other circumstances that may enable, delay, reduce, or prevent the intended benefits. This information supports an informed authorization decision for each component project before it proceeds into its next phase. It also allows the program to adjust benefit-delivery actions, ownership, measures, or timing while there is still an opportunity to protect value realization. Benefits realization management is therefore not merely retrospective status reporting; it includes active evaluation of the environment and factors affecting the achievement and sustainment of benefits. PMI describes benefits realization management as the process of ensuring that outcomes and benefits from projects and programs are identified, delivered, and sustained. See PMI's Benefits Realization Management Framework and the PMI Lexicon of Project Management Terms.

QUESTION NO: 31

Which two of the following documents MUST be submitted by the communication's project contractor for review and approval? {Select two options.)

A. Test reports

B. Shop drawings

C. Cost summary

D. Site survey

E. Request for information (RFI)

ANSWER: A B

Explanation:

Shop drawings and **Test reports** are required contractor submittals because they provide the project team with the information needed to verify both the proposed installation and the completed communications infrastructure. Shop drawings document the contractor's detailed implementation of the design, including such items as pathways, spaces, cable routing, equipment layouts, terminations, and coordination details. Their review confirms that field installation can be coordinated with the construction documents and applicable telecommunications requirements before work proceeds.

Test reports provide objective evidence that the installed cabling system and associated components have been tested using the specified methods and meet the required performance criteria. These records support inspection, acceptance, warranty administration, and future troubleshooting or system management. The designer should define required submittals, test parameters, report format, and acceptance criteria in the telecommunications specifications so the contractor has clear deliverable requirements. BICSI describes the RCDD role as producing coordinated telecommunications design documentation and specifications; see BICSI Standards. Structured-cabling test documentation is also an essential element of installation verification under industry cabling standards, as summarized by TIA Standards.

QUESTION NO: 32

When designing an outside-plant pathway between campus buildings, which two of the following should be considered to improve service continuity? (Select two options.)

A. Physically diverse pathway routes

B. Spare conduit capacity

C. A single shared pathway for all primary and backup services

D. Elimination of all access structures

E. Routing directly through known flood-prone areas

ANSWER: A B

Explanation:

Physically diverse pathway routes improve service continuity because a single excavation, utility strike, flood event, or structural incident is less likely to disable all communications services when alternate routes are physically separated. Diversity is most effective when the routes remain separate for a meaningful portion of their length, including building entrances and critical transition points.

Spare conduit capacity is also important for maintenance and growth. Reserved conduits can support future cable placement, restoration following damage, additional service providers, and expansion without requiring new excavation. The route design should also account for access structures, pulling distances, drainage, and accurate record documentation. See BICSI Standards and TIA Standards.

QUESTION NO: 33

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 essential upfront cost-estimate items because they are foreseeable project costs associated with obtaining authority-having-jurisdiction approval and demonstrating that the installed work complies with applicable codes and project requirements. Permit costs can include application, plan-review, and permit-issuance charges established by the local jurisdiction. Inspection costs may include required field inspections, testing-related inspection activity, reinspection charges where applicable, and fees imposed by the authority having jurisdiction or an approved third party. Including these costs at the earliest estimate stage gives the owner a more complete budget and helps avoid unplanned expenditures once construction begins. It also supports realistic project scheduling, since permit issuance and required inspections are formal milestones that can affect authorization to begin work and final acceptance. BICSI design practice recognizes that the designer must account for applicable codes, regulations, and the authority having jurisdiction as part of delivering a constructible ICT infrastructure design. See BICSI Standards and the International Code Council's code-development resources.