1. Describe the process of identifying and selecting projects

The process of identifying and selecting Information Systems (IS) development projects involves multiple stages and considerations to determine which projects align best with the organization's objectives and are most feasible for execution.

1. Project Identification:

Top-Down Identification:

- Initiated by Senior Management or Steering Committee:

- Focuses on identifying projects aligned with the organization's strategic objectives and long-term goals.

- Addresses global or strategic needs that impact the entire organization.

Bottom-Up Identification:

- Initiated by Business Units or IS Group:

- Originates from specific business units or IS departments focusing on their individual needs.

- Might not align directly with overall organizational objectives but addresses unit-specific requirements.

2. Classify and Rank Development Projects:

- Criteria for Merit Assessment:

- Projects are evaluated based on several criteria such as value chain analysis, strategic alignment with organizational goals, and potential benefits.

- Other factors considered include resource availability, project size/duration, technical difficulty, and associated risks.

3. Selection of Development Projects:

- Decision-Making Outcomes:

- Decisions can result in various outcomes:

- Accepted: Projects approved for funding and further activities in the Software Development Life Cycle (SDLC).

- Rejected: Projects deemed unsuitable or unfeasible for development.

- Delayed: Projects put on hold for various reasons such as resource constraints or strategic reassessment.

- End-User Development: Some projects might involve end-user involvement in development.

Deliverables and Outcomes:

- Primary Deliverable: A schedule outlining specific IS development projects chosen for further execution.

- Incremental Commitment: Projects are continuously reassessed after each phase, allowing for adjustments, redirection, or termination based on evolving requirements or project dynamics.

2. Describe several project evaluation criteria

Project evaluation criteria are standards or factors used to assess the merit, feasibility, and potential success of a project. Here are several commonly used project evaluation criteria:

1. Strategic Alignment:

- Alignment with Organizational Goals: How well does the project align with the overall mission, vision, and strategic objectives of the organization?

- Contributions to Business Strategy: Does the project support key business initiatives or long-term strategies?

2. Return on Investment (ROI):

- Financial Benefits: What are the expected financial gains or benefits from the project?

- Cost-Benefit Analysis: Evaluating the project's potential financial returns against its costs.

3. Feasibility and Viability:

- Technical Feasibility: Can the project be realistically implemented using available technology and resources?

- Operational Feasibility: Will the project integrate smoothly into existing operations and processes?

- Legal and Regulatory Compliance: Does the project comply with relevant laws, regulations, and industry standards?

4. Risk Assessment:

- Identification of Risks: Assessing potential risks that might impact project success.

- Risk Mitigation Strategies: Developing plans to mitigate or manage identified risks effectively.

5. Resource Availability:

- Human Resources: Availability and adequacy of skilled personnel needed for the project.

- Financial Resources: Availability of funds and budget allocation for the project.

- Technological Resources: Availability of necessary tools, software, or infrastructure.

6. Time Constraints:

- Project Timeline: Assessing the project's estimated duration and deadlines.

- Urgency: Evaluating the criticality of completing the project within a specific timeframe.

7. Stakeholder Impact and Support:

- Stakeholder Analysis: Identifying stakeholders and assessing their expectations, interests, and potential impact on the project.

- Stakeholder Support: Evaluating the level of support and involvement from key stakeholders.

8. Scalability and Flexibility:

- Scalability: Ability of the project to accommodate growth or changes in scope if needed.

- Flexibility: Adaptability of the project to accommodate modifications or evolving requirements.

9. Environmental and Social Impact:

- Environmental Sustainability: Assessing the project's impact on the environment and measures to minimize negative effects.

- Social Responsibility: Considering social implications and community impact of the project.

10. Quality and Performance Measures:

- Quality Standards: Meeting defined quality benchmarks and standards for deliverables.

- Performance Metrics: Establishing key performance indicators (KPIs) to measure project success.

3. List and describe the steps in the project initiation and planning process

The process of initiating and planning Information Systems (IS) development projects involves several crucial activities aimed at transforming an initial request or idea into a well-defined project plan.

Project Initiation Activities:

1. Establishing the Project Initiation Team:

- This involves assembling a team responsible for organizing, planning, and executing the project. It includes selecting individuals with the necessary skills and expertise to ensure project success.

2. Establishing a Relationship with the Customer:

- Building a strong relationship and understanding with the customer or stakeholders is essential. This involves effective communication to grasp their needs, expectations, and objectives regarding the project.

3. Establishing the Project Initiation Plan:

- Creating a plan that outlines the steps, activities, and resources required to initiate the project effectively. It sets the direction for subsequent planning phases.

4. Establishing Management Procedure:

- Developing procedures and protocols for project management. This includes defining roles and responsibilities, decision-making processes, and communication channels within the project team.

5. Establishing the Project Management Environment and Project Workbook:

- Creating an environment conducive to effective project management involves setting up tools, software, or platforms necessary for collaboration and documentation. The project workbook serves as a repository for project-related information, including objectives, requirements, and initial plans.

Project Planning Activities:

1. Describing the Project's Scope, Alternatives, and Feasibility:

- Defining the project scope clearly outlines the boundaries, objectives, and deliverables. Exploring alternative solutions and assessing their feasibility helps identify the most suitable approach.

2. Dividing the Project into Manageable Tasks:

- Breaking down the project into smaller, manageable tasks or work packages helps in organizing and planning activities. This process often involves creating a Work Breakdown Structure (WBS).

3. Estimating Resources and Creating a Resource Plan:

- Identifying the resources needed, such as human resources, finances, equipment, etc., and estimating their requirements. This information forms the basis for creating a resource plan to ensure adequate resource allocation throughout the project.

4. What is contained in a baseline project plan? Are the content and format of all baseline plans the same? Why or why not?

A baseline project plan is a fundamental document that outlines key project parameters and serves as a reference point for managing and tracking project progress. It typically includes essential information that sets the groundwork for the project execution. While the core components remain consistent across various projects, the specific content and format of baseline plans can vary based on project

requirements, complexity, and organizational standards. Here's what is commonly included in a baseline project plan:

Content of a Baseline Project Plan:

1. Scope:

- Clear definition of project objectives, deliverables, boundaries, and constraints. It delineates what is and isn't part of the project.

2. Schedule:

- Timeline outlining project activities, milestones, task durations, dependencies, and critical paths. It details when each task should occur.

3. Costs/Budget:

- Estimation of project costs, including resources, materials, labor, and any other associated expenses.

4. Risks:

- Identification and assessment of potential risks that might impact project success. This includes strategies to manage or mitigate these risks.

5. Resources:

- Allocation of necessary resources, both human and material, required to accomplish project tasks.

Variability in Baseline Plans

The content and format of baseline plans can differ across projects due to several reasons:

1. Project Type and Size:

- Different projects may have varying complexities, sizes, and scopes. A large-scale software development project might have a more comprehensive plan compared to a smaller project like organizing an event.

2. Organizational Standards:

- Companies may have standardized templates or structures for baseline plans. However, specific project requirements might lead to deviations or modifications.

3. Stakeholder Requirements:

- The preferences and needs of stakeholders might influence the depth or granularity of information included in the plan. Some stakeholders might require more detailed information about certain aspects of the project.

4. Project Phase:

- Baseline plans can evolve as the project progresses. Initially, the plan might be high-level during the initiation phase and become more detailed as the project moves through planning and execution stages.

5. Industry or Regulatory Requirements:

- Certain industries or sectors might have specific regulations or compliance standards that need to be reflected in the baseline plan, affecting its content.

5. Describe three commonly used methods for performing economic cost-benefit analysis

Economic cost-benefit analysis is a technique used to compare the costs and benefits of a project or decision to determine its economic feasibility. Here are three commonly used methods for performing cost-benefit analysis:

1. Net Present Value (NPV):

- Description: NPV measures the difference between the present value of cash inflows (benefits) and the present value of cash outflows (costs) over a specific period, considering the time value of money.

- Calculation: It involves discounting all future cash flows to their present value using a discount rate. If the NPV is positive, it signifies that the benefits outweigh the costs, indicating a potentially profitable investment.

- Decision Rule: If NPV > 0, the project is considered financially viable.

2. Internal Rate of Return (IRR):

- Description: IRR represents the discount rate at which the present value of expected benefits equals the present value of costs, resulting in a net present value of zero.

- Calculation: It involves finding the discount rate that makes the NPV of the project equal to zero. It signifies the project's potential return on investment.

- Decision Rule: If IRR > Discount Rate (or required rate of return), the project is considered acceptable. A higher IRR indicates a more desirable investment.

3. Benefit-Cost Ratio (BCR):

- Description: BCR compares the present value of benefits to the present value of costs. It's expressed as a ratio of benefits to costs.

- Calculation: BCR = Present Value of Benefits / Present Value of Costs. A BCR greater than 1 indicates that the benefits outweigh the costs.

- Decision Rule: If BCR > 1, the project is considered economically viable. The higher the BCR, the more financially attractive the project.

6. List and discuss the different types of project feasibility factors.

Project feasibility factors assess various aspects of a project's viability, considering different dimensions before proceeding with its execution. These factors help in determining whether a project is technically, financially, operationally, and strategically feasible. Here are the different types of project feasibility factors:

1. Technical Feasibility:

- Technology and Infrastructure: Assesses whether the necessary technology, tools, and infrastructure are available or can be developed to support the project.

- Skills and Expertise: Evaluates whether the required technical skills and expertise are accessible within the organization or if they can be acquired.

2. Economic Feasibility:

- Cost-Benefit Analysis: Determines if the project's benefits outweigh the costs and if the return on investment justifies undertaking the project.

- Budget and Resource Availability: Evaluates the financial resources needed for the project and whether they are available or can be procured within budget constraints.

3. Operational Feasibility:

- Impact on Operations: Assesses how the project will affect existing operations, processes, and resources within the organization.

- Integration: Considers the project's compatibility with existing systems and procedures, ensuring smooth integration without causing disruptions.

4. Schedule Feasibility:

- Timeframe and Deadlines: Determines whether the project can be completed within the specified timeframe or deadlines.

- Dependency on Timelines: Considers dependencies on external factors or critical paths that might impact the project schedule.

5. Legal and Regulatory Feasibility:

- Compliance: Assesses whether the project aligns with legal regulations, industry standards, and government policies.

- Risk of Litigation: Evaluates potential legal risks and the likelihood of facing legal challenges during or after project execution.

6. Social and Environmental Feasibility:

- Social Impact: Considers the project's impact on society, stakeholders, and community welfare.

- Environmental Sustainability: Assesses the project's effect on the environment and whether it complies with environmental regulations and sustainability principles.