PAN AFRICA CHRISTIAN UNIVERSITY

BACHELORS OF INFORMATION COMMUNICATION TECHNOLOGY

END OF TERM EXAMINATION

DEPARTMENT: **COMPUTING & INFORMATION TECHNOLOGY**

COURSE CODE: **BSIT312**

CAMPUS: **ROYSAMBU**

COURSE TITLE: **IT PROJECT MANAGEMENT**

EXAM DATE: **TUESDAY**

TIME: **8:00AM – 11:00AM**

INSTRUCTIONS

- This exam carries a total of SIX Questions of [10 Marks Each]
- Section One (I) is compulsory.
- Answer any 3(Three) Questions from Section Two (II)
- Read all questions carefully before attempting.

Section One Compulsory 10 marks

Question One.

(a) Discuss four significant reasons for a project team leader having good communication skills for good project management outcome. **[4 Marks]**

(b) Time, cost and scope are tree constraints that assure the quality project management. Discuss how each would affect your project deliverables. **[6 Marks]**

Answers: Ellaborate discussions on the following basics award a full mark,

- *Team Collaboration:*
- *Stakeholder Engagement:*
- *Problem Resolution:*
- *Motivation and Team Morale:*

Time:
Impact on Deliverables: The project timeline directly influences the quality and completeness of deliverables. Rushing through tasks to meet tight deadlines may compromise the thoroughness and accuracy of the work. Conversely, a prolonged timeline might lead to delayed delivery, affecting project stakeholders' expectations and the overall success of the project.

Cost:
Impact on Deliverables: The project budget constrains the resources available for the project. If there are cost constraints, it may limit the ability to allocate funds for necessary tools, skilled personnel, or quality materials. Inadequate funding can compromise the quality of deliverables, potentially leading to rework or the omission of essential features.

Scope:
Impact on Deliverables: The project scope defines the boundaries of what is included and excluded. Expanding the scope without adjusting time or cost expectations can strain resources, leading to a reduction in the quality or completeness of deliverables. Conversely, narrowing the scope might result in a faster delivery but may sacrifice certain features or functionality.

Section Two Attempt any Three Questions.

Question Two.

a) Explain how you would apply a Work Breakdown structure during your IT Project process.

[2 marks]

A Work Breakdown Structure (WBS) is a hierarchical decomposition of the total scope of work to be carried out by the project team. It is a fundamental tool in project management that helps break down complex projects into manageable and well-organized components.

b) Debate how the following risk strategies would impact your project management assignments

[8 Marks]

(i) Risk acceptance

(ii) Risk transference

(iii) Risk avoidance

(iv) Risk Mitigation

Risk Acceptance:
Positive Aspects:

Informed Decision-Making: Accepting certain risks may be a strategic decision based on a thorough risk assessment. It demonstrates a clear understanding of potential threats and a conscious decision to proceed despite them.

Resource Allocation: By accepting certain risks, resources that would have been allocated for risk mitigation can be redirected to other aspects of the project.

Risk Transfer:
Positive Aspects:

Risk Offloading: Transferring risks to third parties, such as through insurance or contracts, can provide a level of financial protection and expertise. For instance, purchasing insurance may transfer the financial impact of a certain risk to the insurance provider.

Specialized Expertise: Outsourcing certain aspects of the project can bring in specialized expertise and resources to handle specific risks.

Risk Avoidance:
Positive Aspects:

Prevention of Impact: Avoiding certain risks entirely eliminates the possibility of their negative impact on the project. This can be particularly effective for risks with severe consequences.

Enhanced Project Certainty: By steering clear of high-risk activities or scenarios, project managers can create a more predictable environment, leading to increased confidence in project outcomes.

Risk Mitigation:
Positive Aspects:

Minimization of Impact: Mitigation involves taking actions to reduce the probability or impact of identified risks. This allows the project to proceed with a certain level of risk while actively managing and controlling potential consequences.

Optimized Resource Utilization: Mitigation measures can be tailored to address specific risks, optimizing the use of resources and avoiding unnecessary restrictions on project activities.

Question Three

(a) Suppose you are tasked with automation of Sacco's system backend operations and you are required to report progress to the project board at the end of every two-week period. Describe **five** items of information that should appear on this report.

[10 Marks]

An IT project progress report is a crucial tool for communication and transparency in project management. It provides stakeholders with a snapshot of the project's status, accomplishments, and potential challenges. Here are five items of information that should appear on an IT project progress report:

1. ***Project Status Summary:***
   - ***Description:*** *A concise summary of the overall project status.*
   - ***Information Included:***
     - *Overview of project objectives.*
     - *Percentage completion or progress achieved.*
     - *Key milestones achieved during the reporting period.*
     - *Any major accomplishments or achievements.*
2. ***Timeline and Schedule Updates:***
   - ***Description:*** *Information about the project timeline and any changes to the schedule.*
   - ***Information Included:***
     - *Current project timeline and milestones.*
     - *Comparison of actual progress with the planned schedule.*

        - *Any adjustments to the project timeline, including delays or accelerations.*
        - *Forecasts for upcoming milestones and deadlines.*
3. ***Resource Utilization:***
    - ***Description:*** *Details about the allocation and utilization of project resources.*
    - ***Information Included:***
        - *Resource allocation across different project tasks.*
        - *Changes in resource requirements or staffing levels.*
        - *Any challenges or constraints related to resource availability.*
        - *Plans for optimizing resource utilization in the upcoming phases.*
4. ***Budget and Financial Overview:***
    - ***Description:*** *Financial information related to the project's budget and expenditures.*
    - ***Information Included:***
        - *Overview of the project budget.*
        - *Actual expenditures versus planned budget.*
        - *Any budget overruns or savings.*
        - *Forecasts for future financial needs and adjustments.*
5. ***Risks and Issues:***
    - ***Description:*** *Identification and assessment of project risks and ongoing issues.*

Question Four

Suppose a client requests for a change in a software project scope, describe five key actions you would take a project manager to deal with the requests. **[10 Marks]**

When a client requests a change in a software project scope, it's crucial for the project manager to handle the request systematically to ensure that the project stays on track, and stakeholders are appropriately informed. Here are five key actions a project manager should take:

1. ***Initiate Change Control Process:***
    - ***Description:*** *The project manager should initiate the change control process. This involves documenting the change request, understanding its implications, and formally evaluating the impact on the project scope, schedule, budget, and resources.*
    - ***Actions:***
        - *Document the change request in detail, including the rationale behind the change.*
        - *Identify the potential impact on project deliverables, timelines, and resources.*
        - *Assess the feasibility and risks associated with implementing the change.*
2. ***Evaluate Impact on Project Constraints:***
    - ***Description:*** *Assess the impact of the change request on project constraints such as time, cost, and resources.*
    - ***Actions:***
        - *Conduct a thorough analysis of how the change will affect the project schedule, including any delays or accelerations.*
        - *Evaluate the budgetary implications of the change, considering additional costs or potential savings.*
        - *Assess the availability.*

☐ ***Communicate with Stakeholders:***

- ***Description:*** *Transparent communication is crucial to manage expectations and gain stakeholder buy-in for the change.*
- ***Actions:***
    - *Communicate the change request to relevant stakeholders, including the client, project team, and any other impacted parties.*
    - *Clearly explain the potential impact on project timelines, costs, and deliverables.*
    - *Facilitate discussions to ensure that all stakeholders understand the reasons behind the change and its implications.*

☐ ***Update Project Documentation:***

- ***Description:*** *Keep project documentation up-to-date to reflect the approved changes and their effects.*
- ***Actions:***
  - *Update the project plan, scope statement, and any other relevant documentation to incorporate the approved change.*
  - *Ensure that all team members are aware of the updated project details and any modifications to their responsibilities.*
  - *Maintain a record of the change request, approval, and implementation details for future reference.*

☐ ***Implement Change with Control:***

- ***Description:*** *If the change is approved, the project manager should oversee its implementation while maintaining control over the project's overall integrity.*
- ***Actions:***
  - *Ensure that the change is implemented according to the approved plan and within the specified constraints.*
  - *Monitor the project closely during and after the implementation of the change to identify any unexpected issues promptly.*
  - *Communicate progress to stakeholders, providing updates on the successful implementation and any adjustments made during the process.*

Question Five.

ABC Company has decided to buy in and install an off-the-shelf (OTS) stock control package to replace the existing manual system. This will need new computer equipment and network cabling throughout the offices. You are to manage this project. You have drawn up an outline project plan to include the following main tasks:

A	Interview stock control staff, draw up and agree a list of main requirements	4 weeks
B	Assess alternative OTS packages and select the most appropriate.	4 weeks
C	Specify and order all the required new hardware and communications.	2 weeks
D	Test and install all the new hardware and equipment.	7 weeks
E	Modify and test the package software.	12 weeks
F	Install the package software	1 week
G	Specify & obtain the stock data required to implement the system	5 weeks
H	Draw up a training plan.	2 week
I	Train the users	8 weeks
J	Draw up an acceptance test plan test	3 weeks
K	Acceptance testing	4 weeks
L	Load data and implement the new system.	3 week

(a) Describe the breakdown structure (WBS) diagram for the project, showing all the planned tasks. This WBS should contain at least two levels. Explain the main differences between this WBS and a product breakdown structure (PBS) diagram for the same project. **[10 marks]**

Question Six.

(a) Discuss THREE factors that would contribute to failure of projects **[3 marks]**

IT project failures can result from a variety of factors, and understanding these challenges is crucial for project managers and stakeholders to mitigate risks effectively. Here are three factors that can contribute to the failure of IT projects:
Discussion on how the following could lead to project failiour a ward a full mark;

- *Inadequate Planning and Scope Management:*
- *Inadequate Risk Management:*
- *Communication Breakdowns and Stakeholder Engagement:*

(b) Identify relevant solutions to the factors you have named in (a) above **[3 marks]**

Addressing these factors requires a proactive and comprehensive approach to project management. Ensuring thorough planning, effective risk management, and robust communication and stakeholder engagement strategies significantly contribute to project success and help prevent the common pitfalls that lead to failure in IT projects.

(c) Compare & contrast project monitoring and project control **[2 Marks]**

☐ ***Definition:***

- ***Project Monitoring:*** *Involves tracking, observing, and supervising project activities and performance to ensure that the project stays on course. It focuses on collecting data and information about project progress.*

☐ ***Definition:***

- ***Project Control:*** *Encompasses the actions taken to bring the project back on track when deviations from the project plan are identified during monitoring. It involves making adjustments to ensure that the project aligns with its objectives.*

(d) Explain TWO techniques for avoiding project resource overload **[2 Marks]**

Avoiding project resource overload is crucial for maintaining project efficiency and preventing burnout among team members;

- ***Resource Leveling:*** *Resource leveling is a technique used to balance the distribution of workloads and prevent resource overloads by smoothing out resource utilization over the project timeline.*
- ***Capacity Planning: -*** *Capacity planning involves evaluating the available resources, understanding their capacities, and aligning project demands with the capabilities of the team.*

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