Republic of the Philippines

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**ANSWER SHEET**

**PRETEST**

**System Integration and Architecture**

*First Semester AY: 2020-2021*

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| **Course/Year/Section:** | | BSIT 3-A |  | |  |

**1. Explain system integration and architecture?**

The Systems Integration Architecture provides a bridge between the heterogeneous operational applications and platforms. This architecture ties together the mix of platforms, operating systems, transports, and applications.

**2. What are the purpose of system integration?**

The main reason for organizations to use system integration is their need to improve productivity and quality of their operations. The goal is to get the organizations various IT systems to “talk to each other” through the integration, to speed up information flows and reduce operational costs for the organization.

**3. What are the purpose of system architecture?**

The purpose of system architecture activities is to define a comprehensive solution based on principles, concepts, and properties logically related to and consistent with each other. The solution architecture has features, properties, and characteristics which satisfy, as far as possible, the problem or opportunity expressed by a set of system requirements and life cycle concepts and which are implementable through technologies.

**4. Differentiate Agile and DevOps.**

Agile Methodology involves continuous iteration of development and testing in the SDLC process. This software development method emphasizes on iterative, incremental, and evolutionary development. Agile development process breaks the product into smaller pieces and integrates them for final testing. It can be implemented in many ways, including scrum, kanban, scrum, XP, etc. while DevOps is a software development method which focuses on communication, integration, and collaboration among IT professionals to enables rapid deployment of products. DevOps is a culture that promotes collaboration between Development and Operations Team. This allows deploying code to production faster and in an automated way. It helps to increases an organization's speed to deliver application and services. It can be defined as an alignment of development and IT operation.

**5. Discuss Continuous Delivery and Continuous Integration**

Continuous Integration will help you save on costs in the long run as it is more expensive to fix defects in your high-level architecture when it’s discovered later on in the process. Continuous Delivery is similar to Continuous Integration. You are building a product that can be released to production at any time. Continuous Delivery requires building, testing, and releasing faster and more frequently. Continuous Integration happens before you build as you are testing code. Delivery means you can release something to the staging environment or the pre-production environment.

Continuous Delivery is when your code is always ready to be released but isn’t pushed to production unless you make the decision to do so. It is a manual step. With Continuous Deployment, any updated working version of the app is automatically pushed to production.