NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF INFORMATICS

QUALIFICATION : BACHELOR OF INFORMATICS HONOURS (WEB INFORMATICS, BUSINESS INFORMATICS)	
COURSE: ENTERPRISE ARCHITECTURE	COURSE CODE: EAT810S
QUALIFICATION CODE: 08BIFH, 08BIHB	LEVEL: 8
SESSION: JULY 2019	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 90

SECOND OPPORTUNITY/SUPPLIMENTARY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Ms Irja Shaanika
MODERATOR	Dr Michael Twum-Darko

INSTRUCTIONS
1. Answer ALL the questions.
2. Write clearly and neatly.
3. Number the answers clearly.

PERMISSIBLE MATERIALS
None.

THIS QUESTION PAPER CONSISTS OF 4 PAGES

(Excluding this front page)

Section A: Multiple Choice [10 marks]

1. Which of the following is one of the dimension of the operating model [1 mark]

   A. Unification
   B. Diversification
   C. Integration
   D. Coordination

2. Organic growth in _____ can be achieved through new products introduced to existing customers. [1 mark]

   A. Coordination
   B. Diversification
   C. Replication
   D. Unifications

3. Why do some of the companies executing their business strategies better than others ? [1 mark]

   A. The have implemented EA
   B. They have the best IT structure
   C. They have better foundation for execution
   D. They have company-wide IT governance

4. _____identifies the types and methods of documentation to be used in each sub-architecture area, including strategic analyses, business plans, internal controls, security controls, and models of workflow, databases, systems, and networks. [1 mark]

   A. Standards
   B. Artifacts
   C. Methodology
   D. Frameworks

5. Which of the following is NOT one of the threads of common activity that pervades all levels of the EA3 cube framework? [1 mark]

   A. Workforce
   B. Standards
   C. applications
   D. Security

6. _____Is not an EA component at the data and information level. [1 mark]

    A. Service bus and middleware
    B. Knowledge warehouses
    C. Information systems
    D. Databases

7. In _____business unit managers have full control over their business and IT decisions. [1 mark]

    A. Business Modularity Architecture
    B. Optimised core architecture
    C. Business Silos architecture
    D. Standardized Technology architecture

8. Effective IT governance must address three questions. Which of the following is not Part of such questions? [1 mark]

    A. What decisions must be made to ensure effective management and use of IT?
    B. How will these decisions be made and monitored?
    C. Who should make these decisions?
    D. What are the business strategies and the role of IT in achieving them?

9. _____is not one of the linking mechanisms. [1 mark]

    A. Business linkage
    B. IT governance linkage
    C. Alignment linkage
    D. Architecture linkage

10. Which of the following is not part of the triple constraints of project management?
                                                                              [1 mark]
    A. Time
    B. Funds
    C. Scope
    D. Skills

Section B: Structured Questions [36 marks]

Question 1. A "complete" Enterprise Architecture approach must include six core elements, which must be designed to work together. List and briefly discuss these six core elements.

[12 marks]

Question 2. Briefly discuss the IT engagement model as a component of Enterprise Architecture.

[5 marks]

Question 3. Discuss the importance of the Architecture Management and Transition plan from the perspective of the EA cube framework. [5 marks]

Question 4. List and briefly discuss the EA documentation 'threads' of common activity that are present in all levels of the framework. [9 marks]

Question 5. What is the "current view" of an Enterprise and explain why it is important when designing and developing an enterprise architecture. [5 marks]

Section C: Case Study Questions [44 marks]

Read the following case study and answer questions below.

Case study - Driven by Architecture

Dell's Enterprise Architecture team includes business architects, information architects, application architects, and infrastructure specialists. They have completed the rationalization process and are beginning the next wave: business process transformation. These changes are as much cultural as they are technical. After creating a center of excellence (COE) to study its fundamental business processes, Dell organized the company around five key "process areas," each of which exists to enhance the customer value chain:

• Develop • Market • Sell • Fulfill • Support

These process areas are underpinned by a corporate process area, which supports the processes that support the customer. Process owners in each area are partnered with IT to establish the future systems that will run these areas based on process and capability needs.

"Dell used to think about the physical processes that run the company," Gass (the company IT manager) explains. "Business architecture considers logical processes and cross-domain capabilities. That's what we are designing now. It's a huge change."

One area where Dell identified silo-ed but well-intentioned plans was in the development and delivery of support tools. Various product teams (e.g., notebook team, desktop team, server team, etc.) were capturing diagnostic information for evaluation. From a customer viewpoint,

consistency in how these capabilities are delivered is very important, leading Dell to think about its support to tools across all product lines and to use common develop/design and support processes.

Gass believes that IT must lead the business in any type of large, transformative project. "The business doesn't always have the correct discipline or an established program management office, like IT does," she explains. "That's why business leaders rely on IT to solve problems that they haven't thought about. IT is the facilitator and IT can drive accountability in the business owners and help the various domains interlock."

Source: Oracle Enterprise Architecture Case Study: Dell

Question 1. Discuss standardisation and integration as dimensions of operating model
[4 marks]

Question 2. Explain to Dell management why the choice of operating model is a critical decision for an organisation. [6 marks]

Question 3. Explain why it is important for Dell organisation to focus on cultural change when carrying out their business process transformation. [3 marks]

Question 4. From an Enterprise Architecture view, are you in agreement with the statement below? Motivate your answer. [5 marks]

> "IT must lead the business in any type of large, transformative
> project. The business doesn't always have the correct discipline
> or an established program management office, like IT does."

Question 5. Dell architects want to design the organisation's operating model. Briefly explain four common elements in an Enterprise Architecture core diagrams. [12 marks]

Question 6. Discuss three linkage mechanisms that will facilitate the coordination and alignment of activities when Dell develops its Center of Excellence (COE). [9 marks]

Question 7. Discuss the rewards Dell as an organisation will gain from having an effective foundation for execution. [5 marks]

The End

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INSTRUCTIONS
1. Allocate marks clearly according to what students have written.
2. Answers in section B and C must be a demonstration of students understanding of concepts and applications thereof and not exactly as indicated by the examiners.

THIS QUESTION PAPER CONSISTS OF 7 PAGES

(Excluding this front page)