



MANICALAND STATE UNIVERSITY OF APPLIED SCIENCES

FACULTY OF ENGINEERING, APPLIED SCIENCES AND TECHNOLOGY

DEPARTMENT: COMPUTER SCIENCE AND INFORMATION SYSTEMS

MODULE: ENTERPRISE ARCHITECTURE

CODE: INSY413

SESSIONAL EXAMINATIONS

APRIL-2024

DURATION: 3 HOURS

EXAMINER: MR PT. DENHERE

INSTRUCTIONS

- 1. Answer Any four (4) questions*
- 2. Each question carries a Total of 25 marks*
- 3. Start a new question on a fresh page*
- 4. Total marks 100*

Additional material(s): None

Question One

a) Explain the following terms as they relate to Enterprise Architecture engineering.

- i. Strategic Fit [4 Marks]
- ii. Vision [4 Marks]
- iii. IT Governance [4 Marks]
- iv. Capability Maturity [4 Marks]

b) Outline the role of EA approach in developing Information Systems. [9 Marks]

Question Two

With the aid of diagrams, illustrate the four Enterprise Architecture domains based on TOGAF 9.0 that a CIO need to embrace in managing digital transformation of an organization.

[25 Marks]

Question Three

Comparatively discuss the four main frameworks in Enterprise Architecture development, identifying the various themes of each and clearly justify the one you would adopt as an Information Systems practitioner. [25 Marks]

Question Four

a) Explain how an operating model can be used in Enterprise Architecture standardization and integration for transaction processing to present a single face to customers. [10 Marks]

b) The Visual Studio Enterprise Architect (VSEA) is an all-inclusive development tool used in designing applications and XML Web services. Explain the functions in detail of the VSEA in EA engineering. [15 Marks]

Question Five

- a) Who is responsible for Enterprise Architecture development in an organisation? **[5 Marks]**
- b) Companies adopt an operating model at the enterprise level and may adopt different operating models at the division, business unit, region, or other level. Explore the following possible EA operating models that can be adopted.
- i. Coordination
 - ii. Unification
 - iii. Diversification
 - iv. Replication **[20 Marks]**

Question Six

Outline the various five learning areas and the requirements of the four architecture stages. **[25 Marks]**

END OF EXAMINATION