



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY FACULTY OF
FACULTY OF SCIENCE AND TECHNOLOGY EDUCATION

DEPARTMENT OF SCIENCE, MATHEMATICS AND TECHNOLOGY EDUCATION

PST 6179 ADVANCED ENTERPRISE ARCHITECTURE PROGRAMMING

Main Examination
November/December 2024

This Examination Paper consists of 5 pages

Time Allowed: 3 hours
Total Marks: 100
Internal Examiner: A. Mangena
External Examiner: Dr B Moyo

INSTRUCTIONS

1. Answer any four questions.
2. Each question carries 25 marks. Total Marks are 100.

ADDITIONAL MATERIALS NEEDED

1. None

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
TOTAL	100

Question One

- i) What is an Enterprise Architecture framework, and why is it important for aligning business and IT strategies?

[5 marks]

- ii) Evaluate the similarities and differences of the following Enterprise Architecture frameworks:

- Zachman Framework.
- TOGAF Framework.
- DODAF Framework.
- FEAF Framework.

[20 Marks]

Question Two

- i) Explain the differences between database and server.

[5 Marks]

- ii) Create a job vacancy for a Server Administrator. In the advert clearly specify the:

- Qualifications needed for the server administrator,
- Duties to be performed for the server administrator,
- Skills and Competencies for the server administrator,
- Examples of Types of server applicants needs to be familiar with.

[15 Marks]

- iii) Explain why you would opt to use Linux or Windows in server administration.

[5 Marks]

Question Three

- i) Explain the periods in the development of e-commerce. [6 Marks]
- ii) Discuss the following concepts. [9 Marks]
- a) Business logic programming.
 - b) Event Driven Programming.
 - c) Software deploying.
- iii) Explain the benefits and drawbacks of Cryptocurrencies. [10 Marks]

Question Four

1. Explain the value of Enterprise architecture? [5 marks]
2. Compare and contrast the following: [10 marks]
- Enterprise and Enterprise Architecture.
 - Internal and External Drivers of Enterprise Architecture.

3. Study Figure 4.1 below.

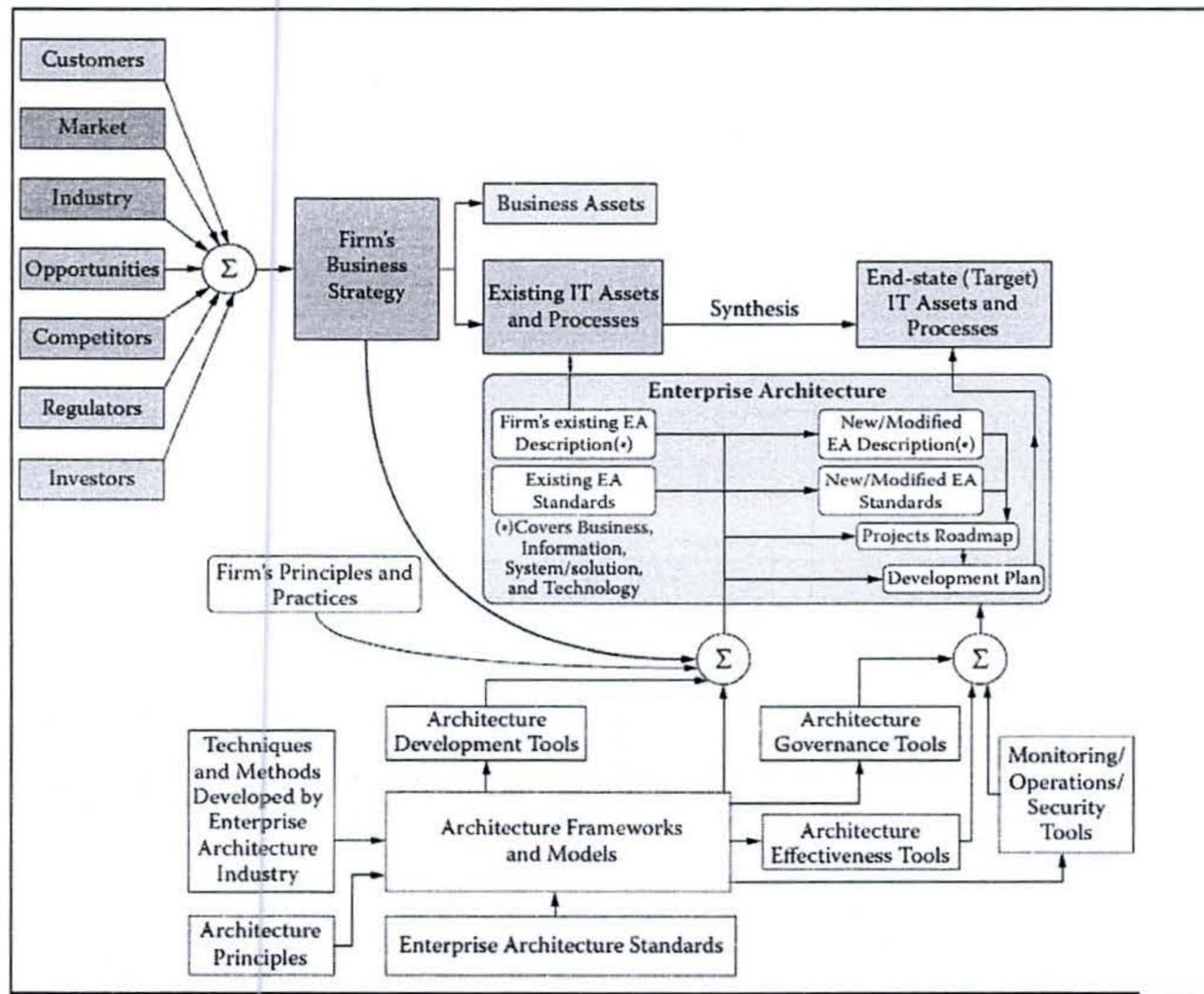


Figure 4.1

Using Figure 4.1 explain the major concepts of enterprise architecture.

[10 marks]

Question Five

- a) Explain what is meant by the term “organization specific architecture principles” and give an overview of any 3 principles. [7 marks]
- b) Discuss the qualities an effective enterprise architect should possess. [6 marks]

- c) Use Figure 5.1 below to explain how enterprise Architecture can be used as a management instrument. [12 marks]

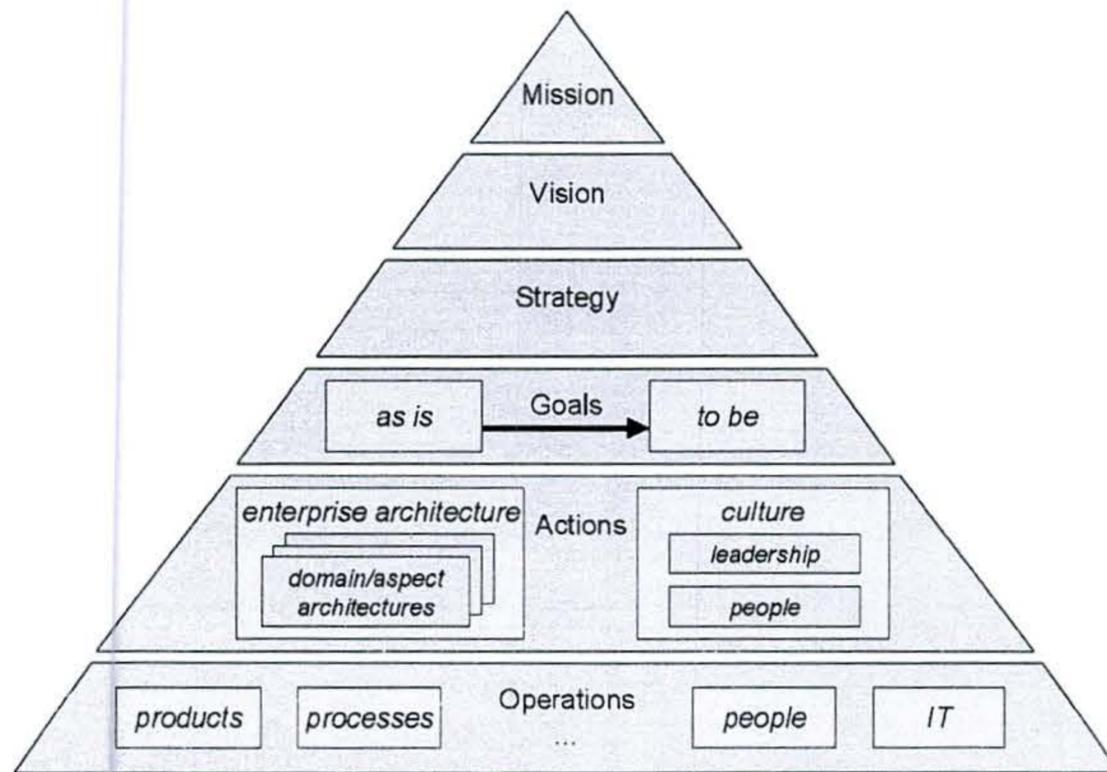


Figure 5.1

End of Exam