



ZIMBABWE EZEKIEL GUTI UNIVERSITY
COLLEGE FOR LIFELONG LEARNING.

Faculty of Artefactual Design & Futures.

EXAMINATION PAPER

COURSE CODE : **DSDM111.**

COURSE TITLE : **Introduction to Smart Human Settlements
Planning and Design.**

SPECIAL REQUIREMENTS : **NONE**

DURATION : **2 Hours**

LEVEL : **1.1**

DATE :

INSTRUCTIONS TO CANDIDATES:

1. No cell phones are allowed in the examination venue.
2. Question 1 (Section A) is compulsory. In Section B, choose and answer any Three (3) questions.
3. The number of marks for each question or part question is shown in brackets []
4. Use relevant examples to support your answers.
5. Begin each answer on a new page.
6. **DO NOT OPEN THIS PAPER UNTIL THE INVIGILATOR INSTRUCTS YOU.**

SECTION A. COMPULSORY QUESTION

QUESTION 1.

Case Study:

Read the following scenario and answer the questions that follow:

"Singapore is considered one of the world's leading smart cities. The government has implemented various initiatives to create a sustainable, efficient, and livable urban environment."

Questions:

- (a) What are the key components of Singapore's smart city strategy? **(5 Marks)**
- (b) How has Singapore's urban planning approach contributed to its success as a smart city? **(5 Marks)**.
- (c) Discuss the various technologies used in Singapore's smart city initiatives. How have these technologies improved the quality of life for citizens? **(5 Marks)**.
- (d) Evaluate Singapore's efforts to create a sustainable and resilient city. **(5 Marks)**.
- (e) Analyze the ways in which Singapore has involved citizens in the planning and decision-making process for smart city initiatives. **(5 Marks)**.

SECTION B

QUESTION 2.

Discuss the impact of IoT (Internet of Things) on urban infrastructure management. **[25 Marks]**

QUESTION 3.

Evaluate the effectiveness of smart transportation systems in reducing urban congestion. **(25 Marks)**.

QUESTION 4

Explain how planning standards can impact community health and well-being. Provide examples of specific standards that promote these outcomes. **(25 Marks)**.

QUESTION 5

Discuss the design principles that should be considered when creating smart human settlements. **(25 Marks)**

QUESTION 6

Choose a city that has implemented smart human settlement principles. Analyze the outcomes and challenges faced. **[25 marks]**