

## COMPETITIVE ENTRANCE

## ENGLISH LANGUAGE

## EXAMINATION

## TIME: THREE HOURS

## SERIE C, D, E, F, TI and GCE/AL

### SECTION A: GRAMMAR (10 marks)

#### Exercise 1: Verb Tenses and Forms

Choose the correct verb form to complete each sentence (5 marks)

1. By the end of the week, the engineers \_\_\_\_\_ all the machines.  
A) repair    B) repaired    C) will have repaired    D) have been repairing
2. While the technician \_\_\_\_\_ the cables, the power suddenly went out.  
A) checks    B) checked    C) was checking    D) had checked
3. If the client \_\_\_\_\_ the blueprints earlier, we could have started construction.  
A) receives    B) had received    C) has received    D) was receiving
4. The research team \_\_\_\_\_ on the prototype since January.  
A) has worked    B) have been working    C) is working    D) has been working
5. She usually \_\_\_\_\_ the software updates before the monthly reports.  
A) completes    B) is completing    C) has completed    D) completed

#### Exercise 2: Error Recognition

Identify the underlined part that contains a grammatical error. Mark A, B, C, or D. (2 marks)

- i- The manager (A) asked if the report (B) has been submitted (C) on time. (D)
- ii- The machines (A) are testing (B) to ensure proper (C) calibration and accuracy. (D)
- iii- Although (A) the technician was tired, but (B) he completed the task (C) with great focus. (D)
- iv- All engineers must ensures (A) that safety protocols (B) are followed (C) at all times. (D)

#### Exercise 3: Sentence Transformation

Rewrite the following sentences using the word in brackets. Do not change the meaning. (3 marks)

- a- It is necessary to test the circuit before switching on the power. (must)  
→ .....
- b- The project was too complicated for a beginner to handle. (enough)  
→ .....
- c- Someone has repaired the network cables. (passive voice)  
→ .....

## SECTION B: VOCABULARY (10 marks)

### Exercise 1: Word Choice in Context

Select the word that best completes each sentence. (4 marks)

- 1- The CEO emphasized the need for \_\_\_\_\_ development of green technologies.  
A) sustainable    B) superficial    C) replaceable    D) renewable
- 2- The technician made a \_\_\_\_\_ in the circuit diagram which caused confusion.  
A) mistake    B) failure    C) defect    D) flaw
- 3- Engineers must comply with \_\_\_\_\_ standards when working on public projects.  
A) electrical    B) industrial    C) regulatory    D) manual
- 4- The company is seeking \_\_\_\_\_ to fund its new research lab.  
A) installations    B) financiers    C) investments    D) salaries

### Exercise 2: Word Formation

Use the word in brackets to form a word that fits the sentence. (3 marks)

- i- The project's \_\_\_\_\_ required input from various departments. (*implement*)  
→ .....
- ii- Our team conducted a \_\_\_\_\_ analysis before proposing the solution. (*compare*)  
→ .....
- iii- The engineer received an award for his \_\_\_\_\_ contribution to the field. (*innovate*)  
→ .....

### Exercise 3: Collocations and Synonyms

Match each word on the left with the correct synonym or collocation on the right. (3 marks)

- |                 |                      |       |
|-----------------|----------------------|-------|
| a- Launch       | A) Take apart        | _____ |
| b- Troubleshoot | B) Begin operation   | _____ |
| c- Malfunction  | C) Problem           | _____ |
| d- Dismantle    | D) Investigate issue | _____ |
| e- Challenge    | E) Breakdown         | _____ |
| f- Upgrade      | F) Modernize         | _____ |

## **SECTION C: READING COMPREHENSION (10 marks)**

### **The Rise of Smart Cities: Engineering the Future of Urban Life**

In recent decades, urbanization has reshaped the global landscape, placing unprecedented strain on cities' infrastructure. With populations expanding and natural resources dwindling, the demand for sustainable, efficient, and technologically integrated urban solutions has given birth to the concept of "smart cities."

A smart city uses data and digital technology to improve the quality of life for its residents, enhance efficiency in services, and reduce environmental impact. These cities rely on a network of sensors, IoT (Internet of Things) devices, artificial intelligence, and cloud computing to collect and analyze data in real time. Whether it's managing traffic flow, monitoring energy usage, or ensuring public safety, the ultimate goal is to optimize urban systems through connectivity.

Cities like Singapore, Barcelona, and Dubai are pioneers in implementing smart city technologies. For instance, Barcelona has integrated smart lighting systems that adjust according to pedestrian movement and daylight levels. In Singapore, a centralised data platform helps authorities detect and resolve urban issues before they escalate. Meanwhile, Dubai is investing heavily in blockchain technology to make government services fully digital.

Yet the transition to smart cities is not without challenges. Data privacy concerns remain one of the major obstacles. As cities collect more personal and behavioural data, the risk of misuse or cyber-attacks increases. Additionally, there are questions about the digital divide—how to ensure that all citizens benefit equally, especially in lower-income areas where access to technology may be limited.

From an engineering standpoint, building smart cities demands interdisciplinary collaboration. Civil engineers, software developers, urban planners, and environmental scientists must work together to create integrated systems. Engineering students today are being trained not only in technical skills but also in data literacy and sustainability principles.

Cameroon, like many developing nations, stands at the threshold of this transformation. Cities such as Yaoundé and Douala have begun experimenting with smart traffic systems and mobile-based public service apps. However, investment, infrastructure, and skilled personnel remain limiting factors. Nevertheless, these initial steps suggest a promising future.

In conclusion, smart cities offer a dynamic, data-driven solution to modern urban problems. While there are challenges to overcome, the integration of engineering and technology in urban planning marks a significant step toward a more sustainable and inclusive future.

### **QUESTIONS**

#### **1. Multiple Choice – Key Ideas & Details (4 marks)**

Choose the correct answer. Tick or circle **A, B, C, or D**.

1. What is the main goal of a smart city?  
A) Make cities larger    B) Promote tourism    C) Improve life via digital systems    D) Replace human labour
2. How does Barcelona use smart technology?  
A) Store solar energy    B) Light adjusts to movement    C) Use drones    D) Robots at intersections
3. What is a major concern about smart cities?  
A) Power cuts    B) Worker shortage    C) Data privacy & inequality    D) Building permits
4. What limits smart city progress in Cameroon?  
A) Poor internet in Europe    B) Lack of interest    C) Infrastructure & skills    D) Too many laws

## 2. Short Answer – Vocabulary & Inference (3 marks)

Answer in **one or two complete sentences**.

5. What does the expression “**digital divide**” mean in this passage?  
→ .....
6. Name **two professions** needed to build a smart city.  
→ .....
7. What **technology** is used in Singapore to prevent urban issues?  
→ .....

## 3. Opinion Paragraph – Justification & Expression (3 marks)

Write a short paragraph (60–80 words):

8. **Should smart city technology be a national priority for countries like Cameroon? Why or why not?**  
Give two arguments to support your answer.

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## SECTION D: ESSAY WRITING (10 marks)

**Instruction:** Write an essay of 250-300 words. You are reminded of the necessity of good English and orderly presentation of your answer.

Topics: **1- Discuss the importance of teamwork in engineering projects.**

**2- How do new technologies affect the engineering field?**