



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-ABUJA
FACULTY OF COMPUTING
DEPARTMENT OF COMPUTER SCIENCE
2025_2 EXAMINATIONS

COURSE CODE: CIT 882

COURSE TITLE: INTERNET CONCEPTS AND WEB DESIGN

COURSE CREDIT: 2 UNITS

TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER TWO QUESTIONS

QUESTION 1

- a) Define Internet of Things (IoT). (3 marks)
- b) Explain four (4) characteristics of Internet of Things (IoT). (8 marks)
- c) Explain the IoT Use Cases in Utility companies. (6 marks)
- d) With a well labeled diagram, explain the Internet of things architecture. (7 marks)
- e) Briefly explain IoT open-source solutions. (3 marks)
- f) Highlight the disadvantage of Symmetric and asymmetric lightweight cryptographic algorithm used in IoT. (3 marks)

QUESTION 2

- a) Define Internet of Everything (IoE). (2 marks)
- b) Discuss use case of IoT in Automatic smart metering. (5 marks)
- c) List some of the challenges associated with IoT security in utilities. (5 marks)
- d) The IoE Economy will profoundly affect four major Aspects of our lives. Explain. (8 marks)

QUESTION 3

- a) Explain four (4) applications of IoT in our daily routine life. (8 marks)
- b) Describe the four (4) building block of IoT. (6 marks)
- c) Itemize six (6) best known IoT platforms and tools that help you to develop IoT projects in an organized way. (6 marks)

QUESTION 4

- a) Itemize some of the security standards and best practices in IoT. (4 marks)
- b) Explain the three components of IoT in connectivity Blocks and Communication Protocols. (8 marks)
- c) Itemize some of the areas where Internet of Everything is applicable. (5 marks)
- d) Mention three IoT open-source solutions. (3 marks)

QUESTION 5

- a) How is the Internet of Everything different from the Internet of Things? (5 marks)
- b) Itemize six Security Considerations and solutions in the IoT Application Layer. (6 marks)
- c) Briefly discuss the three security tips and solutions at the network layer of IoT. (9 marks)