NATIONAL OPEN UNVERSITY OF NIGERIA
University Village, Plot 91, Cadastral Zone,
Nnamdi Azikiwe Expressway, Jabi, Abuja
FACULTY OF SCIENCES
2023_1 POP EXAMINATION₂₃₁

Course Code: CIT882
Course Title: Internet Concepts and Web Design
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) With a well labeled diagram, explain the Internet of things architecture.   (7 marks)
d) Concisely explain the four-stage architecture of an IoT system.   (6 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)