



THE UNIVERSITY OF ZAMBIA
SCHOOL OF NATURAL SCIENCES
DEPARTMENT OF COMPUTER STUDIES
CSC 2101 – INTRODUCTION TO
COMPUTER SYSTEMS

TEST TWO

TIME: 1 HR 30 MIN

INSTRUCTIONS: ANSWER ALL QUESTIONS

16th MAY, 2016

QUESTION ONE

- a. What is an Operating System? [2 marks]
- b. State 5 services provided by the Operating system (OS), giving a brief explanation of how the OS works in providing each service [20 marks]
- c. Give 3 difficulties with OS design [3 marks]

QUESTION TWO

- a. Define the following; [6 marks]
 - i. Programming Language paradigm
 - ii. Syntax
 - iii. Semantics
- b. List 3 computer language paradigms. For each paradigm; [12 marks]
 - i. Give a brief description
 - ii. Give 2 examples of languages in that paradigm
- c. What does the acronym HTML stand for? What is it used for? [3 marks]
- d. What are the four steps in building a program? [4 marks]

QUESTION THREE

- a. With the aid of a diagram, give the 7 layers of the OSI Reference model. Give a brief description of what each layer does. [28 marks]
- b. Compare and contrast the two physical network technologies, Circuit Switched (connection oriented) and Packet Switched (Store and Forward) [10 marks]
- c. Discuss the following network topologies: [12 marks]
 - i. Mesh
 - ii. Star
 - iii. Ring