

UNIVERSITY OF BUEA

FACULTY OF ENGINEERING AND TECHNOLOGY

Department of Computer Engineering

CEF 311: Operating Systems

1st Semester 2013/2014 Examination

Instructions: Answer questions 1 and 3 others. Marks are allocated as shown.

1. a) What is the difference between multiprogramming and multiprocessing? 2 marks
b) What is an instruction cycle? 2 marks
c) Name four (4) modern derivatives of the UNIX OS? 2 marks
d) What is a race condition? 2 marks
e) What is a logic bomb? 2 marks
2. What is a process and its characteristics. One of its most popular models is the five (5) states model. Give the states and their transition. 20 marks
3. What is concurrency and the problems that arise because of it? What solutions are provided by the OS. 20 marks
4. What is processor scheduling? How can it be classified and what are the policies used? 20 marks
5. What is memory management? What issues are addressed? What techniques are used? 20 marks
6. How is the file system organized? Using examples where possible, give some file attributes and operations. 20 marks

Good luck!

Approved
Signature

Full Name
Date