NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
JANUARY/FEBRUARY 2013 EXAMINATION

Course Code: CIT 752 ***Time:*** 2½ Hours
Course Title: Operating System Concept

***Course Credit Unit*:** 2
Instruction: Answer any five (5) questions. Each question carries 14 marks

1a) Outline the process through which the operating system handles page fault occurrence. Is the process different from basic page replacement process? (8½ marks)

b) What is thrashing? State three causes of thrashing. (5½ marks)

2a) List and explain three page replacement algorithms for single process. (12 marks)
b) State two advantages of fragmentation (2 marks)

3a) Write short notes on virtual memory concept (5 marks)
b) Describe demand paging (4 marks)
c) State three advantages and two disadvantages of demand paging (5 marks)

4a) Briefly describe Translation Lookaside buffer (6 marks)
b) Describe the three memory partition selection algorithms (6 marks)
c) Define dynamic memory allocation (2 marks)

5a) State any five objectives of memory allocation (5 marks)
b) State and describe the types of fragmentation (4 marks)
c) Briefly describe **Single Contiguous Memory Allocation** (5 marks)

6a) What is debugging? (3 marks)
b) State and briefly explain the various debugging techniques (9 marks)
c) State two advantages of sequential file access method? (2 marks)

7a) In the context of inter-process communication by message passing, describe the following i) Direct communication (4 marks)
ii) Indirect communication (4 marks)

b) State the properties of the communication link in each of the scheme in question (7a) above (6 marks)