Bingham University, Karu

Faculty of Science and Technology

Department of Computer Science

First Semester Exams 2018/2019 Session

Course Code: CMP 211 EXAMS. **Course Title:** Operating Systems

Time Allowed: 2hrs. **Instructions:** (Answer Question 1 and 3 others)

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1. John has started a game on his laptop:

   a) Explain the steps required for the program to run from starting the system.

   b) After playing for 30mins he realises that the system is slowing down and eventually returns an error message.

   What causes a message to be returned?

   c) What are possible causes and solutions to the problem explaining your answer?

2. a) Differentiate between a program and a process explaining both.

   b) What activities is the operating system responsible for in memory management

   c) When do we say a real time system is functioning correctly and contrast it with a time-sharing system?

3. a) Explain distributed systems

   b) Why are memory controllers necessary?

   c) How and why are interrupts handled quickly?

4. a) What do the load and store instructions achieve in memory management

   b) Discuss fault tolerance and graceful degradation.

   c) Explain symmetric and asymmetric clustering

5. a) How is the operating system protected from multiple errors in multiprogramming?

   b) Explain privileged instructions in dual mode operations.

   c) What are the functions of systems calls in operating systems?

6. a)From memory management, how are programs executed

   b) What are the operating systems responsibilities?

   c) Explain real time embedded systems and how we know when they are functioning correctly.

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First Semester Exams 2016/2017 Session

Course Code: CMP 211 EXAMS. **Course Title:** Operating Systems

Time Allowed: 2hrs. **Instructions:** (Answer Any Four Question within 4 Lines)

1. a. How are modes of operating systems separated?

   b. Discuss asymmetric multiprocessing?

   c. In a clustered system, distinguish between non-multiprogrammed systems and multiprogrammed systems.

2. a. When do we use virtual memory?

   b. Discuss CPU scheduling.

   c. Discuss Batch systems.

3. a. What do the load and store instructions achieve in memory management

   b. Discuss fault tolerance and graceful degradation.

   c. Explain symmetric and asymmetric clustering

4. a. How are modes of operating systems separated?

   b. Discuss asymmetric multiprocessing?

   c. In a clustered system, distinguish between non-multiprogrammed systems and multiprogrammed systems

5. a. How do we synchronize access to shared memory?

   b. What are the aspects of the computer system that the bootstrap initialises?

   c. How is an interrupt routine called??

4) a How is the operating system protected from [illegible]
   b Explain privileged Instruction in dual mode operation
   c) What are the function of system call in operating system

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