
Monash University

Semester Two 2019 – Mini practice test

Faculty of Information Technology

EXAM CODES: **FIT 2100**

TITLE OF PAPER: **OPERATING SYSTEMS**

EXAM DURATION: 20 minutes writing time, 5 minutes reading time

READING TIME: 5 minutes

THIS PAPER IS FOR STUDENTS STUDYING AT:(tick where applicable)

☐ Berwick ✓ Clayton ✓ Malaysia ☐ Off Campus Learning
☐ **Caulfield** ☐ Gippsland ☐ Peninsula ☐ Enhancement Studies ✓ Sth Africa
☐ Pharmacy ☐ Other (specify)

During an exam, you must not have in your possession, a book, notes, paper, calculator, pencil case, mobile phone or other material/item which has not been authorised for the exam or specifically permitted as noted below. Any material or item on your desk, chair or person will be deemed to be in your possession. You are reminded that possession of unauthorised materials in an exam is a discipline offence under Monash Statute 4.1.

No examination papers are to be removed from the room.

AUTHORISED MATERIALS

CALCULATORS ☐ **YES** ✓ **NO**

OPEN BOOK ☐ **YES** ✓ **NO**

SPECIFICALLY PERMITTED ITEMS ☐ **YES** ✓ **NO**
if yes, items permitted are:

Candidates must complete this section if required to write answers within this paper

STUDENT ID __ __ __ __ __ __ __ __ TUTORIAL DAY/TIME __ __ __ __

A	Q1										

PART A

- **Each question has TWO correct answers. Circle the correct answers.**
- **2 marks and 1 mark will be awarded for the first and second correct answers respectively. However NO mark will be awarded if one or more of the answers to the question is wrong, or the question is not answered.**
- **To get the best possible mark you should only circle answers you are sure are correct. Never circle an answer if you are not sure because it might be an incorrect answer. Do not attempt to guess answers as you might lose all marks for the question.**
- **Total marks for this part is 9**

Q1: Which of the following are true of processes?

A: A process only exists when the processor is actively running the corresponding program.

B: A process can exist even when it is not currently running in the processor.

C: A process in the 'ready' state may not be in main memory

D: A process must be in main memory to be in the 'running' state.

E: When a process is 'suspended,' its process control block (PCB) is taken out of main memory.

Q2: Which of the following statements is true about 'kernel mode'?

A: Kernel mode allows any process to override file system permissions.

B: Kernel mode permits access to any addressable memory on a system.

C: Kernel mode allows the execution of special instructions that are not permitted under 'user mode'.

D: A program that runs in kernel mode can access or modify another program's files on disk.

E: Kernel mode permits the installation of operating system updates.

Q3: Disk scheduling typically involves…

A: Allocating disk space to users in a fair manner.

B: Removing internal fragmentation so disk space can be used efficiently.

C: Examining disk requests to determine the most efficient order in which to service the requests.

D: Re-ordering disk requests to minimise overall seek time.

E: Ensuring files are allocated in contiguous blocks.

PART B

- **Answer all the questions in the space provided below the question**
- **The marks for each question as indicated at the end of the question**
- **The maximum number of marks for this part is 6.**
- **Rough work can be completed at the back of the paper, and will not be marked.**

Q1: This question is about disk scheduling algorithms.

(a) What do these terms mean: SCAN, SSTF? **(3 marks)**

(b) Identify an advantage of SCAN as compared to SSTF. **(3 marks)**

END OF TEST

Note: This test is a mini sample version of the mid-semester test. Solutions to this sample paper will not be provided.
The real test will be twice as long: it will include 40 minutes writing time and 30 marks total.

THIS PAGE MAY BE USED FOR ROUGH WORKING