Place answers in the boxes provided for each question. Name: Jacob Andrew

Keep in mind that Ubuntu Linux, (used in this course), may differ then other distributions of Linux.

Assessment Policy for this assignment:

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| Use items provided in this assessment only.  No use of lecture materials, textbooks, notes, search engines or AI tools. | Permitted to use lecture materials, textbooks, and notes to complete this assessment. | **Permitted to use lecture materials, textbooks, notes, and search engines for limited research to complete this assessment.** | Permitted to use all tools. This includes the use of lecture materials, notes, textbooks, search engines, and AI tools to complete this assessment. |

1. (10 points) Concerning Linux
   1. (5) What programming language is Linux written in?

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* 1. (5) Explain what the term portable means as it relates to Linux.

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1. (10 points) Provide 2 reasons Linux was a good choice for the Android phone platform.

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1. (5 points) What is needed for an operating system to allow processes to use more memory than the server has physically installed?

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1. (10 points) Many CPU-scheduling algorithms are parameterized. For example, the Round Robin algorithm requires a parameter to indicate the time slice. Multilevel feedback queues require parameters to define the number of queues, the scheduling algorithms for each queue, the criteria used to move processes between queues, and so on. These algorithms are thus really sets of algorithms (for example, the set of RR algorithms for all time slices, and so on). One set of algorithms may include another (for example, the FCFS algorithm is the RR algorithm with an infinite time quantum). What (if any) relation holds between the following pairs of algorithm sets?
   1. (3) Priority and SJF

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* 1. (4) Multilevel feedback queues and FCFS

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* 1. (3) Priority and FCFS

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1. (10 points) Convert the units below:
   1. (5) How many KiB are in 3 GiB?

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* 1. (5) How many bits are in a 19 KB file using the SI unit definition?

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1. (9 points) Do some research. List (3) Linux distributions below other than Ubuntu:

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1. (5 points) What is the processing capacity for a (4) socket server configured with (3) quad core processing boards?

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1. (5 points) What does RAM stand for?

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1. (5 points) Provide a reason why RAID 0+1 may be considered better than RAID 0?

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1. (12 points) List 3 technical requirements described in the textbook for installing an Ubuntu Server:

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1. (4 points) List (2) device choices discussed in the textbook that Ubuntu can be installed on:

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1. (5 points) Where would a server engineer obtain the Ubuntu os for installing on a new server?

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1. (5 points) What is meant by partitioning a disk?

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1. (5 points) What is the parity representation of these (2) bit representations: 00001111 11000011?

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