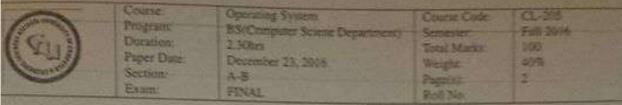
National University of Computer and Enterging Sciences, Labore Campus



istructions/Notes: Honesty is the best policy.

- 1. Your Answers must be concise, to the point, well indented, aligned and properly united
- 2. Total time of the paper includes submission time. No extra time will be provided for submission.
- 3. Submission MUST be on XEON

4. Manage your time wisely after reaching question paper carefully

- 5. Submit only one Source file Rolf No.epp Do not submit me tile.
- 6. Use of internet, cell phones, USB or any other helping material will award you F-Grade in Lah. Good Luck

Question 1 (100 points): You have to model a packing line where some my cars are being processed. The cars need to be sorted and packed before they are sent to the warehouse.

A sorting mechanism takes the cars from the line and loads them unto different lines for puckaging depending on the scale/size i.e. the sorting thread reads the toy cars from the file and assets them one different buffers depend the scale/size.

The packaging units, different for all three lines, packs them so they could be disputched to the wardstook or the pack thread would read the elements from a buffer and if militorem elements are found. It seem box count for the respective size

Soce:

The cars have three different scales(sizes) small, medium, and large.

The input file should be named toys on

The input file will only include random occurrences of characters 's , 'm' and T, descring artall, medium and he toy cars respectively.

Each eparate packing line must be modeled by a sectoricircular buffer

- Lines in [4] must be read as FIFO.
- 6. The buffer for small cars can held up to 15 elements, the medium one can held 10 and the one for large can hel elements max at any given time.
- 7. The toy cars are packed in boses. A box can contain, 6 small cars, 4 medium cars, OR 2 large cars
- 8. There must be a thread that prints how many boxes each line produced. This thread prices the number of bo ready for dispatch every second.
- 9. The sorting and pucking units must be modeled as threads (1 somer, 3 puckers and 1 printer 5 in soul).

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