**EITN95 Group project 1 - Report**

Date

*First name surname*

*First name surname*

*First name surname*

**Contributions:** (this fictive text is an example only)

We organised our work as follows. In a first project meeting we planned our work and set times for completion of sub tasks. We also discussed the problems in the assignment and sketched out the models we would need for the different simulations. Following this, we drew plans with the processes, signals and parameters for the tasks involving the process interaction method and the objects and events that made up the models for the event scheduling tasks. Finally, we divided the work so that Author1 implemented tasks 1 and 2, Author2 tasks 3 and 5 and finally, Author 3 tasks 4 and 6. We met up a first time to discuss programming issues and planned the verification and validation processes. After a further two meetings, we had completed the validation process and run the simulations. We finally, divided the report writing according to our divided tasks and met a final time to polish the last of the text.

**Results**

In this section we detail the results we got and answer the questions in the tasks.

**Task1**

We implemented a single queuing system with the following parameters; customer arrivals were negative exponentially distributed with average 3 s. The queue length was set to 20 customers and the service was distributed as .

We made the following tests in the verification process

Using Little’s law we tested the queuing time with inter-arrival time 1,2 and 3s and the results matched the expected results. We then investigated the general behaviour when the inter-arrival time was set to 1, and the queue grew constantly. Etc, etc.

We then investigated the mean time a customer spends in the queue T and found it to be:

T=13s

**Task 2**

*Appendix A*

Code for task 1

*Appendix B*

Code for Task 2

…