1 Question

Consider the task set $\Gamma = \{\tau_i\}$, with $\tau_1 = (2, 20)$ $\tau_2 = (2, 15)$ $\tau_3 = (3, 10)$ $\tau_4 = (3, 15)$ $\tau_5 = (3, 30)$ (assume relative deadlines equal to periods: $D_i = T_i$). If tasks $\tau_5$ and $\tau_2$ share a resource (with $\tau_5$ accessing the resource for 2 time units, and $\tau_2$ accessing the resource for 1 time unit), is the task set schedulable? (choose a proper scheduling algorithm and resource access protocol)
2 Question

Describe the most important differences between a real-time OS kernel and a non real-time OS kernel.
3 Question

Explain the most important steps to build a filesystem image for an embedded device, using dynamically linked binaries.
4 Question

Describe how to analyse the sensitivity of a task set to variations in the WCETs of the various tasks. Provide an example of such a sensitivity analysis.