Problem 1

|  |  |  |
| --- | --- | --- |
| Region | Address | Variable |
| .stack | F800h | a |
| F7FCh | b |
| F7FAh | c |
| F7F8h | s[3] |
| F7F4h | s[2] |
| F7E0h | s[1] |
| F7ECh | s[0] |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Size / Mem Size (bytes) | Address | Alignment | Content |
| a | 4 / 4 | F800h | Yes | 00 00 00 17 |
| b | 2 / 2 | F7FCh | Yes | 00 17 |
| c | 1 / 2 | F7FAh | Yes | ?? |
| s[3] | 4 / 4 | F7F8h | Yes | 00 |
| s[2] | 4 / 4 | F7F4h | Yes | 00 00 00 03 |
| s[1] | 4 / 4 | F7E0h | Yes | 00 00 00 02 |
| s[0] | 4 / 4 | F7ECh | Yes | 00 00 00 01 |

Problem 2

|  |  |  |
| --- | --- | --- |
| Region | Address | Variable |
| .bss | 1\_0014h | i |
| .data | 1\_0010h | s[2] |
| 1\_000Ch | s[1] |
| 1\_0008h | s[0] |
| 1\_0004h | c |
| 1\_0000h | f |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Size / Mem Size (bytes) | Address | Alignment | Content |
| f | 4 / 4 | 1\_0000h | Yes | 00 00 20 40 |
| c | 2 / 4 | 1\_0004h | Yes | 41 00 |
| s[0] | 4 / 4 | 1\_0008h | Yes | 01 00 00 00 |
| s[1] | 4 / 4 | 1\_000Ch | Yes | 00 00 00 00 |
| s[2] | 4 / 4 | 1\_0010h | Yes | 01 00 00 00 |
| i | 4 / 4 | 1\_0014h | Yes | 00 00 00 00 |