DS 221 **Assignment 2** **due 23 Aug 2022**
(3 marks)

1. (B&O 2.59) Write a C expression that given 2 unsigned ints *x* and *y* will yield a word consisting of the least significant byte of *x* and the remaining bytes of *y*. For operands *x* = 0x89ABCDEF and *y* = 0x76543210 this would give 0x765432EF.

2. (from B&O 2.61) Write C expressions that evaluate to 1 when the following conditions are true and to 0 when they are false. Assume *x* is of type int.
A. Any bit of *x* equals 0
B.Any bit in the least significant byte of *x* equals 1

3. (based on B&O 2.91c) The IEEE 754 approximation for π has the hexadecimal representation 0x40490FDB. At what bit position (relative to the binary point) does this differ from the common approximation 22.0/7.0?

Submission: Submit your answers before midnight on the due date by uploading to Teams a single PDF file containing your answers to all 3 questions. The name of the file should be of the form Assg2Firstname.pdf. For example, in my case the file name would be Assg2Matthew.pdf