Philadelphia University

Faculty of Engineering

Student Name:

Student Number:

Information for candidates
1. *This Quiz paper contains 1 question totaling 5 marks*
2. *The marks for parts of question are shown in round brackets.*

Advices to candidates
1. *You should attempt all sub questions.*
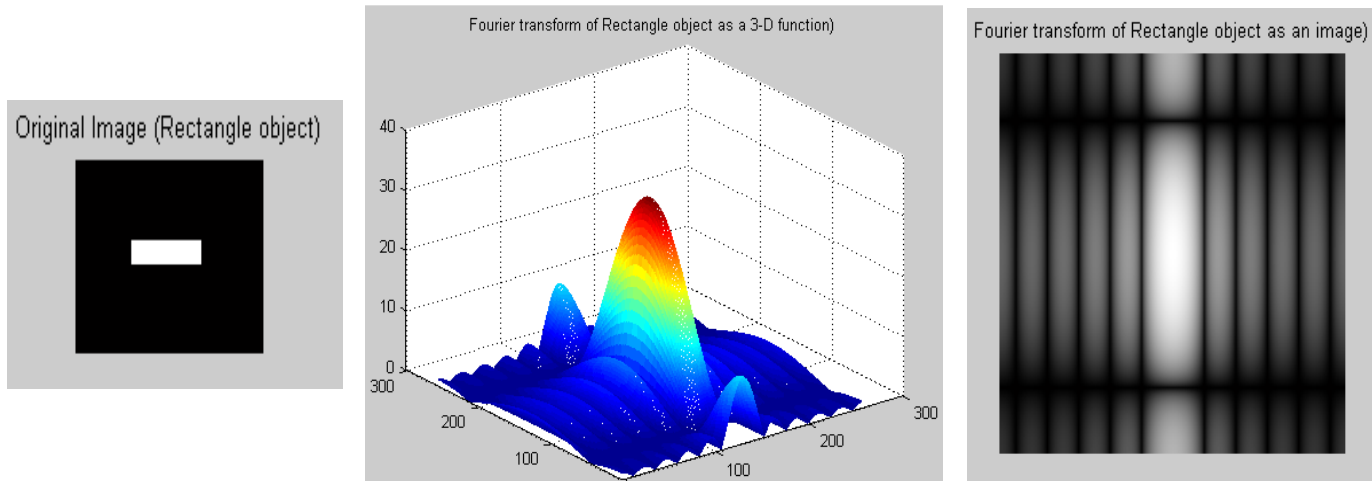2. *You should write your answers clearly.*

Question 1   *(5 marks)*

Write a Matlab script code to determine and display the two-dimensional Fourier transform of a thin rectangular object (you must construct it). The object should be 2 by 10 pixels in size and solid white against a black background.
Take the Fourier transform padded to 256 by 256 and plot the result as a 3-dimensional function (using mesh) and as an intensity image as shown in the following figures.

GOOD LUCK