National College of Ireland

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BSc (Hons) in Computing, Year 1 - BSHC
BSc (Hons) in Business Information Systems, Year 1 -BSHBIS
BSc (Hons) in Computing (Evening), Year 1 - BSHCE
BSc (Hons) in Business Information Systems (Evening), Year 1- BSHBISE
BA in Management of Technology in Business, Year 1 - BAMTB
Higher Certificate in Science in Computing, Year 1 - HCC
Higher Certificate in Science in Computing (Evening), Year 1 - HCCE
Certificate in Web Development, CWEBD

Semester One Examinations – 2011/2012

Monday 16th January, 2012
6.30pm – 8.00pm

Introduction to Computers

Ms. Leonie Deasy
Mr. Eugene MacLaughlin
Dr. Thomas Newe
Mr. Tom Nolan
Mr. Ciaran O' Leary

Answer **Section A** and only one question from **Section B**

Duration of exam: 1.5 Hours
Attachments: None

Section A

Question 1 (60 Marks)

Explain the meaning of each of the following words/phrases; give clear and precise examples where appropriate:

a) Computer
b) Digital
c) Megabyte
d) Peripheral Device
e) Random Direct Access
f) Defragmentation
g) Algorithm
h) Telecommunications
i) Database
j) Trojan Horse

(10 x 6 Marks)

Section B

Question 2 (40 Marks)

a) Use a diagram to illustrate the main components of a typical computer system. (Hint: Von Neumann)

(10 Marks)

b) Define software, explaining the **two** main types of software in your answer and giving five functions of the operating system.

(15 Marks)

c) Briefly discuss the Central Processing Unit and the role it plays inside the computer. In your answer, examine the mains parts which make up the CPU, saying what each part is responsible for.

(15 Marks)

Question 3 (40 Marks)

a) What is the Fetch/Execute Cycle? Briefly examine the process involved in the Fetch/Execute Cycle and saying how this contributes to the Machine Cycle.

(10 Marks)

b) Outline the differences between a Local Area Network, a Metropolitan Area Network and a Wide Area Network, listing four benefits of using a network within an organisation.

(15 Marks)

c) Briefly describe **three** basic types of network topologies and draw a diagram to represent each of the topologies.

(15 Marks)