

Programming Languages

CHAPTER 11:

PASTPAPERS

N.B. These pastpapers may rely on the knowledge gained from the previous chapters.

2 SEC'96-PAPER 1-Q7 (CONSULT CH 10)

Use **TEN** of the following terms to complete the passage below:

CPU	BASIC	fetch-execute	opcode	registers
Address	machine-code	program-counter	disk	operands
ALU	instruction	keyboard	execute	data

A _____ instruction is made up of an _____ specifying the operation to be performed by the _____, followed by zero or more _____, specifying the data on which the operation is to be performed. At the beginning of a _____ cycle, the CPU places the contents of the _____ on the _____ bus, and receives the next instruction over the _____ bus. The instruction is stored in the _____ register while it is being decoded and _____.

6 SEC'99-PAPER 1-Q3

Use *ten* of the following terms to complete the passage below:

Compiler	debugger	executable	translated	slower
<i>Middle</i>	<i>high</i>	<i>instruction</i>	<i>assembly</i>	<i>CPU</i>
<i>Source</i>	<i>assembler</i>	<i>low</i>	<i>machine</i>	<i>portable</i>

Pascal is a _____ level language. The _____ does not _____ directly understand Pascal , so a Pascal program has to be _____ into _____ code by a _____. The Pascal program as written by the programmer is called the _____ code, while the translated version is called the _____ code. Unlike a _____ level language such as _____ language, a Pascal program is _____, which means that it can be compiled to run on a variety of processors.

[5]

7 SEC '00-PAPER 1-Q1 (CONSULT CH 10)

What is each of the following called?

- (a) A CPU register in which the address of the instruction being executed is held: _____ [1]
- (b) Data on which an instruction is to operate: _____ [1]
- (c) The amount of memory a CPU can access: _____ [1]
- (d) The bus driver over which instructions are transferred from main memory to the CPU: _____ [1]
- (e) The language understood by the CPU: _____ [1]

8 SEC '00-PAPER 1-Q4 (CONSULT CHs 4 & 7)

Mention **TWO** differences between each pair of terms:

a. MAIN and BACKING storage

[2]

b. HIGH-LEVEL and LOW-LEVEL programming languages.

[2]

c. OCR and OMR

[2]

d. A BAR-CODE READER and LIGHT-PEN

[2]

9 SEC '01-PAPER 1-Q5

Insert the appropriate words from the list below to complete the passage. Each word may be used once, twice or not at all.

Logic *user* *source* *assembler* *translator*
numbers *executable* *Basic* *programmer* *compiler*
machine code

Computers can only understand _____. When a programmer writes a program a _____ has to be used to convert the _____ code into _____ code. The type of translator used depends on the programming language used by the _____. If the program was written in a low level language an _____ may be used. If it was written in a high level language such as _____ an _____ has to be used to convert high level statements into instructions that can be executed one by one by the central processing unit. On the other hand, if it was written by a high level language such as _____ a _____ is used.

[5]

