CHINIOT ISLAMIA PUBLIC SCHOOL AND COLLEGE

1ST QUARTERLY TEST

Computer Science - Grade O-I

Name:	Section:	Roll No:
_____	_____	_____

Time: 2 Hours **Total Marks: 40**

INSTRUCTIONS • Answer all questions. • Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs. • Write your name, centre number and candidate number in the boxes at the top of the page. • Write your answer to each question in the space provided. • Do not use an erasable pen or correction fluid. • Do not write on any bar codes. • Calculators must not be used in this paper.
INFORMATION • The total mark for this paper is 75. • The number of marks for each question or part question is shown in brackets [ ]. • No marks will be awarded for using brand names of software packages or hardware.

Q1 .

1. Describe what is meant by a high-level language. and explain one drawback to a user if the program is distributed as freeware.

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2. Jason is writing a computer program in a high level language. he needs to send just the machine code for the program to his friend, electronically. it is important that the program is executed as quickly as possible. Identify which translator will be most suitable for Jason to use and also Explaination of this translator.

Q2 .

1.

The size of the image file is 3072 bytes.

(i) Give the size of the image file in kibibytes (KiB).

..... [1]

(ii) State the number of nibbles in 1 byte.

..... [1]

Working space

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The image file has a colour depth of 32 bits.

(i) State what is meant by a colour depth of 32 bits.

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..... [1]

(ii) The colour depth of the image file is changed to 64 bits.

Explain what effect this change has on the image file.

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..... [2]

2. Add the **two** binary numbers using binary addition.

Give your answer in binary. You must show all your working.

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  01100101
+ 01110000
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[3]

An overflow occurs when two other 8-bit binary numbers are added together.

Explain why the overflow error occurs.

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..... [2]

The negative denary number –22 is stored in RAM.

Negative denary numbers can be represented as binary using two's complement.

Give the two's complement 8-bit binary integer that would be stored for the denary number –22.

You must show all your working.

Working space .....

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Two's complement 8-bit binary integer .....

[2]