

Please write clearly in block capitals.

School

Class

Name

Teacher

KS3 COMPUTING

COMPUTING

Key Stage 3 (Years 7-9) · End-of-Year Practice Paper · Set A · National Curriculum

Time allowed: 1 hour

Materials

For this paper you must have:

- a pen.
- no other materials are required.

Instructions

- Use black ink or black ball-point pen.
- Answer all questions in the spaces provided.
- Do all rough work in this book.
- In all calculations, show clearly how you work out your answer.

Information

- The maximum mark for this paper is 60.
- The marks for questions are shown in brackets.
- You are reminded of the need for good English and clear presentation.

For Examiner's Use	
Question	Mark
1	
2	
3	
4	
5	
6	
TOTAL	

Answer all questions in the spaces provided.

1 This question is about algorithms.

1.1 What is an algorithm?

[2 marks]

1.2 What name is given to a diagram that shows the steps of an algorithm using boxes and arrows?

[1 mark]

1.3 Put these steps to make a cup of tea in a sensible order: pour water; add tea bag; boil kettle; add milk.

[2 marks]

1.4 Explain what is meant by 'decomposition' when solving a problem.

[2 marks]

1.5 Explain why a computer program needs precise, unambiguous instructions.

[3 marks]

2 This question is about programming.

2.1 In programming, what is a 'variable'?

[2 marks]

2.2 What is a 'loop' used for in a program?

[1 mark]

2.3 What is meant by 'selection' (an IF statement)?

[2 marks]

2.4

Write, in plain English or simple code, an instruction that outputs 'Pass' if a score is 50 or more.

[2 marks]

2.5

Give one reason why programmers test their programs.

[1 mark]**3****This question is about data representation.**

3.1

What number system do computers use to store data?

[1 mark]

3.2

How many bits are in a byte?

[1 mark]

3.3

Convert the binary number 0101 into denary (base 10).

[2 marks]

3.4

Put these units of storage in order, smallest first: megabyte; bit; kilobyte; byte.

[2 marks]

3.5

Explain why computers use binary rather than the numbers 0-9.

[6 marks]**4****This question is about computer hardware.**

4.1

What does CPU stand for?

[1 mark]

4.2

Give one example of an input device and one example of an output device.

[2 marks]

4.3

What is the difference between RAM and storage (e.g. a hard drive)?

[2 marks]

4.4

Explain the role of the CPU in a computer.

[7 marks]

5

This question is about networks and the internet.

5.1

What is a computer network?

[2 marks]

5.2

What is the difference between a LAN and a WAN?

[2 marks]

5.3

Give one advantage of connecting computers in a network.

[1 mark]

5.4

Explain how data is sent across the internet.

[3 marks]

6**This question is about e-safety.****6.1**

Give two ways to keep yourself safe online.

[2 marks]

6.2

What is meant by a 'strong password'?

[2 marks]

6.3

What should you do if you see something upsetting or are bullied online?

[2 marks]

6.4

Explain why you should think carefully before posting things online.

[4 marks]

END OF QUESTIONS