



Johnstone High School Computing Department Credit Prelim Exam 08/09

Name: _____

Class: _____

1. Mr Hall uses a spreadsheet to record the results of tests that pupils sit. Each pupil sits 3 tests and to pass they need to score more than the chosen pass mark in any one of the tests.

Part of the spreadsheet is shown below.

	A	B	C	D	E	F
1						
2				Pass Mark	12	
3						
4	Pupil Name	Set 1	Set 2	Set 3	Top Score	Result
5	J McIndoe	10	14	16	16	Pass
6	L Snedon	9	11	11	11	Fail
7	C McGurk	14	12	9	14	Pass
8	B Little	10	12	14	14	Pass
9	M Jones	7	5	8	8	Fail

a) State the formula to calculate the top score for J McIndoe in cell E5.

b) A conditional formula is used in cell F5, using cell E2, to calculate whether J McIndoe has passed or not.

Fill in the blanks in the formula below:

F5 = _____ (_____ , _____ , _____)

c) (i) The formula above is copied to cells F6 to F9. What kind of referencing would be used to allow this formula to easily and quickly be copied to the other cells?

(ii) Explain your answer.

KU	PS
	0
	1
	2
	0
	1
	2
	3
	4
	0
	1
	0
	1
	2

KU	PS
0	
1	
	0
	1
0	
1	
0	
1	
	0
	1
	0
	1
	0
	1

d) Mr Hall used a *shareware* program downloaded from the World Wide Web to create the spreadsheet file.

(i) What is shareware?

(ii) Mr Hall is informed by a member of his department that he has broken the terms of the shareware software license.

Write down **one** thing that Mr Hall might have done to break the license terms.

(iii) Write down one other software license type Mr Hall could have used other than shareware, and explain how this license works.

Type _____

Explanation _____

e) Give **one** reason why Mr Hall might prefer obtaining software via download rather than having it posted to him.

e) Mr Hall has a new printer installed that does not print out the spreadsheet as he expected it to.

Which piece of software most likely needs to be installed?

(ii) Why is this piece of software required?

KU	PS
0	
1	
2	
3	
0	
1	
2	
0	
1	
2	
0	
1	
0	
1	
0	
1	

3. a) (i) The processor of a computer system can be split into 3 main parts.

(i) Name these three parts.

(ii) Explain the function of **two** of these parts.

1. _____

2. _____

b) How does the operating system locate items in main memory?

c) AGL Electrics are a company selling electrical equipment. Customers send in paper order forms which are then entered into the company's computer system using *OCR*. What is meant by "OCR"?

O _____ C _____ R _____

d) The company have started to Email clients with the letter attached in a *standard file format*.

(i) Name **one** standard file format.

(ii) Describe **one** advantage of using standard file formats.

KU	PS
0	
1	
2	
0	
1	
2	
	0
	1
	2
	0
	1

4. *High level languages* must be translated into machine code before they can be executed. This can be done by using a *compiler* or an *interpreter*.

a) Give **one** advantage of each of these translators over the other.

Compiler Advantage _____

Interpreter Advantage _____

b) State **two** characteristics of a high level language.

1. _____

2. _____

c) Paul Bailey is a programmer who writes custom software for companies. His code is written with the inclusion of clear *on-line help* and *on-line tutorial* facilities.

Which of these facilities should new customers use when they first receive the software? State one reason for your answer.

Facility _____

Reason _____

d) Which Act ensures that no one can legally make copies of Paul's work and pass it off as their own?

KU	PS
	0 1
0 1	
0 1	
	0 1 2
0 1 2	

5. a) Diana works for the Kitchen Craft company. The company sell items such as cookers and washing machines to the public and also have a service where they repair damaged or faulty goods.

Diana is responsible for entering customer faults in a database on the computer system. Engineers can then access these reports from any computer on the company's Local Area Network (LAN).

(i) State the term used to describe a network where many computers can access resources stored on one particular machine.

(ii) What piece of hardware will every machine require to connect to the network?

(iii) What kind of database allows the engineers to access information from any computer in the building?

b) Should the database be stored on random access backing storage media or sequential access backing storage media?

Explain your answer

Media _____

Reason _____

c) Information entered into the computer databases has to go through various error checking processed. *Validation* and *verification* are two such means.

Complete the table below:

Process	Meaning	Example
Validation		Range check
Verification	Making sure that the data is entered correctly	

d) Customers to the shop often pay using smart cards issued by their banks. State **two** advantages that smart cards have over older types of cards that customers would have previously used.

1. _____

2. _____

e) When paying with their cards, Customer payment transactions are undertaken using *Electronic Funds Transfer* (EFT).

Outline the steps involved in EFT.

- _____
- _____
- _____
- _____

f) Some staff take advantage of the facilities that the computer network allows to work from home.

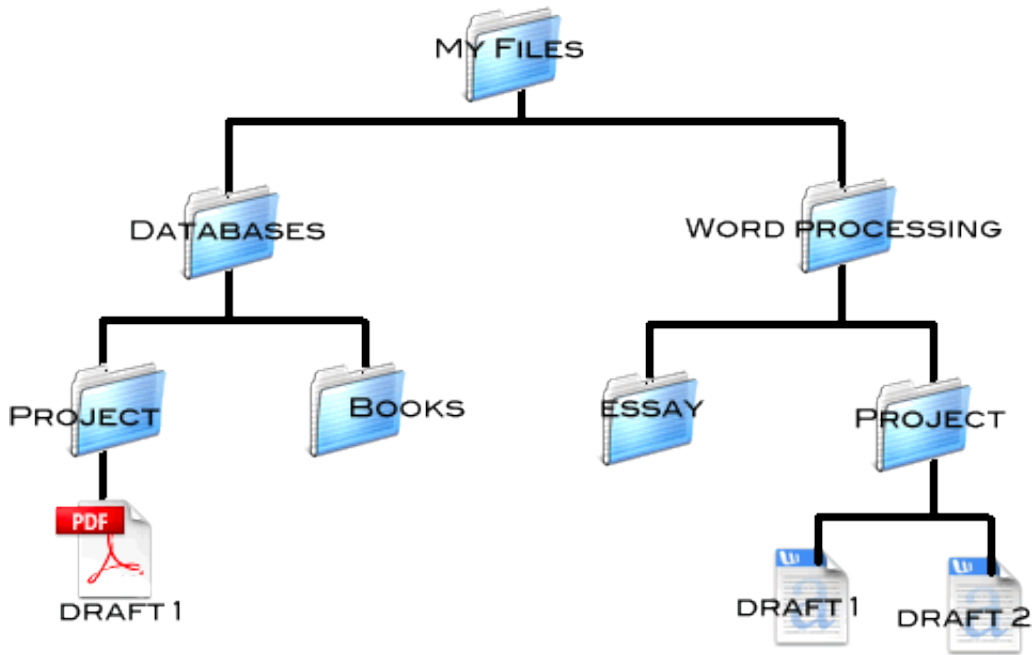
Give **two** advantages to company employees of working from home.

1. _____

2. _____

KU	PS
0	
1	
2	
0	
1	
2	
3	
	0
	1
	2

6. a) One of the functions of the *Operating System* is *file management*. The diagram below shows how a user organises her files.



(i) What type of filing system has she used?

(ii) Describe **two** benefits of using this type of filing system. Use examples from the diagram above to illustrate your answer.

1. _____

2. _____

b) Write down **two** other tasks that the operating system is responsible for.

1. _____

2. _____

KU	PS
0	
1	
	0
	1
	2
0	
1	
2	

7. Dean Valley Runners use the following black and white image as their club logo, appearing on club leaflets, running vests and other club related items.



a) The image is stored as a black and white bit-mapped graphic and measures 400 pixels wide by 600 pixels high.

Calculate the storage requirements of the graphic in kilobytes. Show all working.

b) The club decide to make a multimedia presentation displaying highlights from the running year to distribute to anyone interested in becoming a new member. The presentation is to include video of club races and audio files containing an interview with the club president as well as a theme tune to play throughout the duration of the presentation

Describe **two** different ways in which audio can be captured to meet the specific requirements for the presentation.

1. _____

2. _____

KU	PS
	0
	1
	2
	3
0	
1	
2	

c) Each year the club send out a letter to members detailing their membership status, fees due and a list of events that they may be interested in. All letters are the same, except for the personal details and event list.

(i) What is the name for this type of letter?

(ii). Describe the steps required to create these personalised letters.

d) The letter sent to members includes the club logo. However, the graphic is too large to fit on the letter and will have to be cropped or scaled.

Should the *crop* facility or the *scale* facility be used on the graphic?

Give a reason for your answer.

Facility _____

Reason _____

e) The club logo is amended in a graphics package to introduce some colour into in. When the graphic file is saved, the change is reflected in the word-processed letter that is sent to members.

What kind of linkage is being used her?

KU	PS
0	
1	
3	
2	
1	
0	
	2
	1
	0
	1
	0

37	37
-----------	-----------