

PSSC Computer Studies 1997 Finals – Marking Scheme

- | | |
|---|--|
| <p>1. The computer system shown is an example of a microcomputer. It can also be called a.</p> <p>c. Desktop Computer</p> <p>2. What is the name given to the chip inside a computer which controls the interaction between its various components?</p> <p>d. microprocessor</p> <p>3. The automatic placement of a word onto the next line in word-processing is called.</p> <p>b. word-wrap</p> <p>4. Which of the following can be considered an output device?</p> <p>a. laser printer (both laser printer and laser beam can be output device, but it seems the examiner wants the 'most common.')</p> <p>5. Jone sent his document to the printer but the characters were not printing as expected. What is the most likely cause of this problem?</p> <p>c. The printer ribbon is worn out. Note for this question that the problem is the 'characters were not printing as expected,' this implies that printing is working correctly except that the lettering is not showing as it normally shows.</p> <p>6. A person who gains illegal access to other people's programs and data is called a.</p> <p>a. hacker. This is the mass media definition for a hacker, in computer science a hacker is an inventive and resourceful person able to solve difficult computer problems.</p> <p>7. Which of the following occur when a file or document is saved after editing?</p> <p>b. The edited version replaces the old version.</p> <p>8. Unauthorised copying of programs for personal gain is called</p> <p>a. piracy. Note the use of the term 'personal gain'</p> <p>9. Which part of the labelled floppy disk is responsible for preventing data from being erased or written over.</p> <p>a. I. The write protect notch when open prevents the computer from writing things to the disk.</p> <p>10. Your class teacher wants to create a program that can store, access and update students records. Which of the following applications would be best to use?</p> | <p>b. Database</p> <p>11. You are given a handout and the footer at the left hand corner is:
C:\Windows\Exam\Exam.Doc. What subdirectory is the document Exam.Doc kept in?</p> <p>d. Exam</p> <p>12. If you wish to insert a paragrap from one document into another document (while still keeping it in the first document) what would you do?</p> <p>b. Copy then Paste</p> <p>13. Which formatting feature is a spreadsheet program allows data to be displayed to a specific number of decimal places?</p> <p>d. Fixed</p> <p>14. Latu created a spreadsheet and wanted to copy the formula in the source cell into the next column without making any changes. Which action will be the most appropriate to use.</p> <p>b. Absolute Addressing</p> <p>15. The "What if" prediction is a powerful feature of a spreadsheet program. Which of the following is an example of this feature?</p> <p>c. Increasing the selling price by 10%</p> <p>16. Numbers stored in spreadsheets that are used in calculations are called</p> <p>c. values</p> <p>17. The area in a dtabase above that is labeled represents a.</p> <p>a. record</p> <p>18. Which of the following is a simple query for all items whose price is more than \$100.00?</p> <p>a. Items > \$100.00</p> <p>19. You are asked to sort the data so that the items are arranged according to their numbers in stock from the least to the highest. After sorting, the item that will be the fifth record will be.</p> <p>d. Writing Pad</p> <p>20. The concept of data integrity best applies to</p> <p>a. Updating changes in a file. Data Integrity is about making sure that data in a spreadsheet or database is accurate.</p> |
|---|--|

Section B – Short Stories

1a. Complete the table below to show the functions and names of the various parts of the computer system shown.

- (i) Display what programs on the computer want the user to see, Monitor, VDU, Screen
- (ii) Data Entry
- (iii) Mouse

1b. Explain what you understand by the term surge protector.

a surge protector protects equipment plugged into it from electrical surges. Electrical surge is a large increase in voltage (for example rising from 240V to 300V) and can cause damage to computer equipment plugged into a line that has a surge. A surge protector prevents this large surge from getting from the outside into the side where the computers are.

1c. Computers can do many things but at times they cause problems. Identify four possible causes for not being able to save data to a floppy disk.

- i. Disk is not formatted
- ii. Disk is full
- iii. Disk is not in the disk drive
- iv. Disk is bad (corrupted)

1d. John was asked to cold boot the system.

Describe what he would be doing.

John would be starting the computer after it had been turned off (or the power point is currently off).

John would need to make sure all electricity is turned on, and to turn the computer on. Note: You should know and understand what warm boot is, and how to do it.

1e. Your assignment topic was to describe how data is stored in a computer. Write a sentence or two to explain each of the following terms.

- i. The difference between primary and secondary memory/storage. Primary is usually faster (RAM/ROM) than secondary (HDD/Floppy) but primary also is smaller due to high cost and much more can be stored in secondary.
- ii. The difference between a bit and a byte. (you should know this one)
- iii. What do you understand the operating system to be. Note the four functions: (a) Memory Management (b) Device Management (c) File Management (d) Process management. Once you have at least three of these listed then you can create/write a sentence about what an Operating System is expected to do.

2a. Write down what each of the following acronyms stand for. Also state what they are used for.

ASCII – (American Standard Code for Information Interchange) Used for computers (binary) to represent the alphabet and special characters (eg. Numbers and punctuation marks)

ROM – (Read Only Memory) Used by computers to store critical startup instructions (such as what to do when a computer is started and where to find the operating system)

2bi. Sela was asked to format a floppy disk. Explain what she would be doing.

Preparing a diskette so the computer can put data onto the disk.

2bii. Describe how she might do this.

Double click My Computer → Single Click Floppy → Select the File | Format menu → click start
Or – Start MS-DOS Prompt → type “Format A:”
(without the quotation marks)

2c. Explain what you understand by a backup file

A file that is a copy of the original file used to safely store a copy of the original. Usually the backup file is stored in a separate location from the original file.

2d. Care must be taken when handling floppy disks to ensure safety of information stored on them. Write down two ways of taking care of floppy disks.

- i. Store in a place away from direct sunlight
- ii. Keep away from dusty areas
- iii. Keep away from magnetic fields (example do not place on top of TV or Transformers)
- iv. Do not touch the disk surface nor allow dirt or other material to touch it (keep the latch closed when not in the computer.)
- v. Keep away from Toakase who will most likely format it and put her own stuff on it.
- vi. Keep away from Mele Mausia who'll probably think it's something for her boys at Toloa to eat with.
- vii. Keep away from 'Tea who will want to translate all the information inside into 'Tea language

2ei. Briefly explain what a computer virus is.

2eii. Describe how it can enter a computer.

2eiii. Give a reason why viruses are a major concern for computer users?

2f. Spreadsheets are powerful and convenient calculation tools.

Give three reasons why you prefer to use a spreadsheet to calculate figures than to use a calculator

- i. Data Integrity. Editing mistakes is much easier. You can correct errors by just changing the error instead of having to retype all the calculation
- ii. Presentation. Pretty reports are easier to create within a spreadsheet
- iii. Formulas in spreadsheets allow complex calculations to be easily created and performed automatically by the spreadsheet and all that needs to be entered are the numbers.
- iv. Special Functions such as for financial, statistical calculations are available for spreadsheets that are not found on most calculators.
- v. Data Sharing. Data can be sent to friends and they can check and update information directly on the spreadsheet and do not have to reenter the calculations.

3a. An example of an application package is

communications. Briefly explain what a communication package is and how it can be used in your school.

A communication package allows two computers to talk to each other. Communication packages usually

refers to packages used for communicating between two distant computers.

At a school it can be used for sharing information between two schools (via transferring e-mail, or class notes, or programs).

3b. The school bazaar will be held in August and you are required to create a one page poster to be advertised in the local newspaper. What general purpose software will you use ? Give a reason to support your answer.

Note: almost anything can be placed here so long as your justification is correct and a good argument for your cause.

Desktop Publishing: ← This is the appropriate answer, but you have to justify

Word-processing: ← This could be the answer, if your justification is convincing

3c. An advertisement in a magazine includes the acronym WYSIWYG. Write down what it stands for. Briefly explain what you understand by the term.

3d. Read the following newspaper article and answer the questions below in the spaces provided.

- i. For what main purpose is “Bingo” being used in the school? Bingo is used “main use in the school is to automatically call parents when students are late for school or miss classes.”
- ii. Why do you think the students are protesting against this system? (interpretation for you to make, must make sense. If you have a ‘strange’ reason, then give enough explanation to convince the examination marker.
- iii. What would the school do to guard against the following with regard to the operation of the system.
 - (a) Unauthorised access: password protect entry into the computer, password protect entry into the database, keep the computer in a locked and monitored room.
 - (b) Loss of data. Backup data onto another machine or storage device that is kept somewhere other than the building the computer is in.

3e List three advantages of using a word-processor program and not a pen and paper.

Note: easier by itself will not get you a mark. Use a complete sentence that (a) states the advantage and (b) gives a supportive example.

3f. Briefly explain the following terms that are used in word-processing.

- i) Justification – the alignment formatting for a paragraph, whether it is left, center, right, or justify
- ii) mail-merge – when you want to merge (bring together) a master document (eg. Letter) and data document (which for example can contain a list of names and addresses.)

- iii) print preview – The ability of programs to ‘preview’, give us a look at how a document is going to look when it will be printed.

4a Write down the formula to calculate the following:

- i. Total expenditure in B10: =SUM(b4:b9)
- ii. Surplus in B11: =E11-B11
- iii. Explain how you will copy the range of cells B4-B9 to C4-C9 ? (you should know at least two ways to achieve this and write them both down, making sure that you specify that it is two different ways of doing the same thing.)
- iv. What formatting feature has been applied to all text in A3..A
- v. Name the range of data you would define to create a pie chart showing expenditure spending. A4:B9 or B4:B9

4b. Explain the following terms and give an example of each.

- i. formula – instructions for calculations such as =A1+A2 –or- =SUM (K2:K5)
- ii. label – text or numbers on a spreadsheet to display information not necessarily used in calculations. Eg. Headings like, Student Name
- iii. operator – used in formulas to determine what sort of calculation is to be done. Example: + for addition, - for subtraction

4c. Briefly explain what happens to values in a graph when changes are made in the spreadsheet? The values in the graph should change to reflect the change in the spreadsheet data.

4d. Write down the formula for the following and the cell address where it will be entered.

- i. Bari’s total marks.
Cell Address: F6
Formula: =sum(B6:E6) or =SUM(B:E)
- ii. Maximum mark for English
Cell Address: B8
Formula: =max(B2:B7) or =max(B2:B6)

4e. Write down the total number of cells from A1 to C6 (learn how to count)

4f. Briefly explain how you can change the width of a column (you should know at least two ways of doing this, and how to explain this)

5a. A database management system (dbms) is responsible for controlling the operation of a database. One of its main functions is to create files. List three other functions of a dbms.

- i. Reports
- ii. Queries
- iii. Tables / Records
- iv. Data Entry Forms
- v. Data Integrity

5b. Give a reason why NAME is not a suitable keyfield in a school’s enrolment database.

- i. Reason: A keyfield is used as a unique identifier of a record. People change their names, and in large schools it is common to have students with the same name.
- ii. Suitable Alternative. Use a student-id field that is created by the school as a unique number for each student.

5c. The school librarian wants to create a database for the library. List at least four fields she would need?

- i. Book Title
- ii. Book Catalog Number
- iii. Book Author
- iv. Book Category
- v. Date when book came to school
- vi. Borrower ID – for who currently has the book borrowed

5d. Briefly explain two ways by which information in a database can be stolen.

- i. copy the data from the disk
- ii. copy the data from printed reports
- iii. steal the computer

List three security measures that can be used to prevent information being stolen.

- i. Lock the computer in a secure, monitored area
- ii. Password protect computer
- iii. Password protect use of the database
- iv. Secure printed information

5e. For a class database, write a query statement to find out how many male students are 15 years old and have paid their school fees. (think about this one)

5f. Briefly explain what you understand by **sorting the records**. (think about this one)