CENTRE ESPECÍFIC
D´EDUCACIÓ A DISTÀNCIA DE
LA COMUNITAT VALENCIANA

UNIT 3.HARDWARE COMPONENTS

Activities

Computer Systems
CFGS DAW

Autores: Alfredo Oltra / Sergio Garcia
Modificado: vicent.bosch@ceedcv.es
2020/2021
Versión:201111.1011

Licencia

Nomenclatura

A lo largo de este tema se utilizarán distintos símbolos para distinguir elementos importantes dentro del contenido. Estos símbolos son:

Actividad opcional. Normalmente hace referencia a un contenido que se ha comentado en la documentación por encima o que no se ha hecho, pero es interesante que le alumno investigue y practique. Son tipos de actividades que no entran para examen

Atención. Hace referencia a un tipo de actividad donde los alumnos suelen cometer equivocaciones.

UD03. HARDWARE COMPONENTS
Internal components. Activities

(1) What is the function of the battery that is in the motherboard? What happens when it runs out?

Page 7 of Contents

(2) In the documentation we have talked about some internal connectors, but there are others which have not been explained. For example, some MoBo have a WOL connector. Can you describe it and indicate what is its function?

Check this article:

https://www.howtogeek.com/70374/how-to-geek-explains-what-is-wake-on-lan-and-how-do-i-enable-it/

(3) Regarding the previous question, there are still other internal connectors, like ports I/O: IDE, FDD, SATA, USB, FireWire. Find out about them showing their shape (photo), as silk-screened on the MoBo, which connect, which speeds support ...

(4) What is the difference between suspend and hibernate a computer? ***Check here:***

https://www.howtogeek.com/102897/whats-the-difference-between-sleep-and-hibernate-in-windows/

And between warm start and cold start? ***Check here:***

https://www.geeksforgeeks.org/difference-between-cold-booting-and-warm-booting/

What is APM? ***Check the definition***:

https://www.computerhope.com/jargon/a/apm.htm

And ACPI? What permit? ***Check here:***

https://www.geeksforgeeks.org/acpi-full-form/

Discuss it in forum.

(5) When a transmission is in parallel and when it is in serial mode? Define it. Share your opinion about what is faster in forum. ***Check the forum.***

(6) Find one MoBo for Intel processors and one for AMD processors? Which chipset incorporates? Which features have each of them? ***Check the forum.***

(7) For each of the MoBo chosen in activity 6. What memory distribution would you do? What kind of memory? Could you put ECC modules? How much it would cost (€)?

(8) 👁 For each of the MoBo you have chosen in the activity 6, indicate where are located the processor, northbridge, southbridge and BIOS. ***Check the forum.***

(9) 👁 Answer the following questions:

1. Physical definition of processor, functions.
2. How does a dual-core architecture work?
3. Difference between multi core and multiprocessor system.
4. Which are the elements of a dual core CPU? Make a diagram

(10) Analyze different ways of cooling that a processor can have. What is the sink? Why it has that shape? Can the fan change its frequency to cool more? How it detects that it has to turn faster?

Check here:

https://www.howtogeek.com/192196/5-cooling-solutions-to-prevent-your-pc-from-overheating/

(11) Download the Everest, AIDA or similar application and use it to analyze your computer. Make a table in which all the elements studied so far appear and share them in forum. ***Check the forum.***

(12) 🎖 Research and discuss your conclusions on the following topic: Monitoring the systems motherboard and equipment management.

(13) 🎖 Knowing a little bit of history is a good idea to place us in a context. Make a chronology of microprocessors for PCs, starting with the 8088. What is Moore's Law?

(14) 🎖 Take a look at the Gigabyte website, https://www.gigabyte.com/uk/Motherboard, and choose two motherboards. Try to identify components, connectors, etc. which have been explained in Unit 3. Post your findings in the Unit 3 Forum.