7.1.1 Computer Systems

Class Tasks

Student Worksheet

# Class Task 1 – Personal Computer Systems

## Question 1.1

Identify **FOUR** internal components of a personal computer system? (***4 marks***)

## Question 1.2

Identify any **THREE** advantages of a desktop PC over a laptop? (***3 marks***)

## Question 1.3

Explain what is meant by Form Factor? (**1 mark**)

## Question 1.4

List any **TWO** advantages a Magnetic HDD has over an SSD? (***2 marks***)

## Question 1.5

What is the difference between a Processor and a Core? (***1 mark***)

## Question 1.5

What does RAM stand for? (***1 mark***)

## Question 1.6

RAM is ***VOLATILE***. What does this mean? (***1 mark***)

## Question 1.7

You have been given a motherboard with four slots for Main Memory.

List **ALL** possible memory combinations of 16Gb RAM chips that you could choose, and their totals. (**4 marks**)

## Question 1.8

List **THREE** advantages that a wired network has over a wireless network (**3 marks**)

# Class Task 2 – Servers

For each of the following servers, identify what the server does, the client requests and possible server responses. The firs example has been given to you.**ve**

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| **File Server** | **A server that stores data as files for reading and writing.** | | |
| **REQUESTS** | **Meaning** | **RESPONSES** | **Meaning** |
| OPEN | Open a file for editing |  |  |
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| --- | --- | --- | --- |
| **Database Server** | **A server that stores data as tables and allows clients to connect to them to access the data** | | |
| **REQUESTS** | **Meaning** | **RESPONSES** | **Meaning** |
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| **Print Server** | **A server that stores files in a queue before sending them to a printer** | | |
| **REQUESTS** | **Meaning** | **RESPONSES** | **Meaning** |
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| **Mail Server** | **A server that allows the sending and receiving of emails.** | | |
| **REQUESTS** | **Meaning** | **RESPONSES** | **Meaning** |
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Class Task 3 – Smart Devices

## Question 3.1

What is a Smart Device? (***1 mark***)

## Question 3.2

What are the four smart device categories you are required to know for this course? (***4 marks***)

## Question 3.3

Identify any **three** commands that you can send to a smart door camera? (***3 marks***)

# Exam Style Questions

## Question 1

Explain any **TWO** advantages of a laptop over a desktop PC? (***4 marks***)

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## Question 2

Name **TWO** advantages of a large form factor case. (***2 marks***)

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## Question 3

East Berkshire Computers (EBC) is a small software development company that has decided to upgrade all the development computers. EBC has decided to use computer systems containing solid state hard drives (SSD) instead of magnetic HDDs.

Discuss how SSDs can have an impact on the company. (***6 marks***)

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## Question 4

East Berkshire Computers are considering using Dual Processor Computers for their development servers. Their development servers will be running a range of complex software applications at the same time.

4.1 Explain **one** advantage of using Dual Processor Computers. (***2 marks***)

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4.2 Explain **two** disadvantages of using Dual Processor Computers (**4 marks**)

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## Question 5

Explain **two** advantages of having more RAM in a computer system. (**4 *marks***)

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## Question 6

Describe how a client / server interaction works. (***3 marks***)

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## Question 7

Describe how a client device communicates with a Smart Device over the internet. (***4 marks***)

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Question 8

Explain **one** way a smart device can be a security risk? (***2 marks***)

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