

GSP1 202 / 2202: Use of Library, Study Skills & ICTs

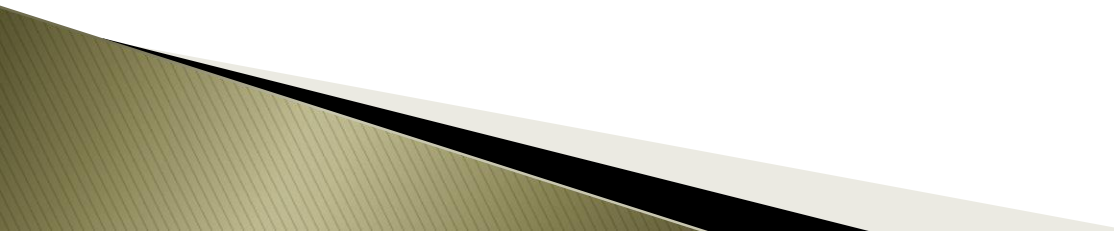
Information and Communication Technology
(ICT)

By

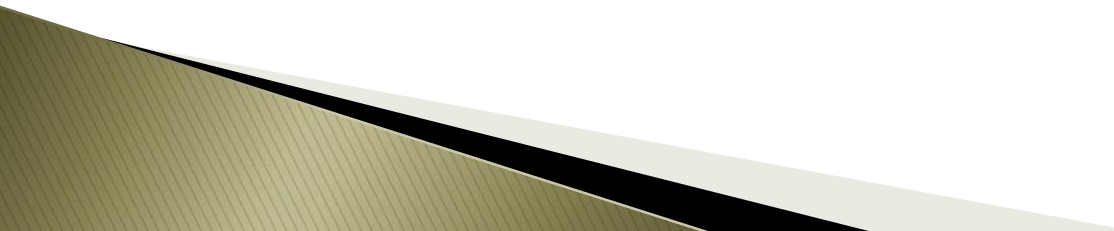
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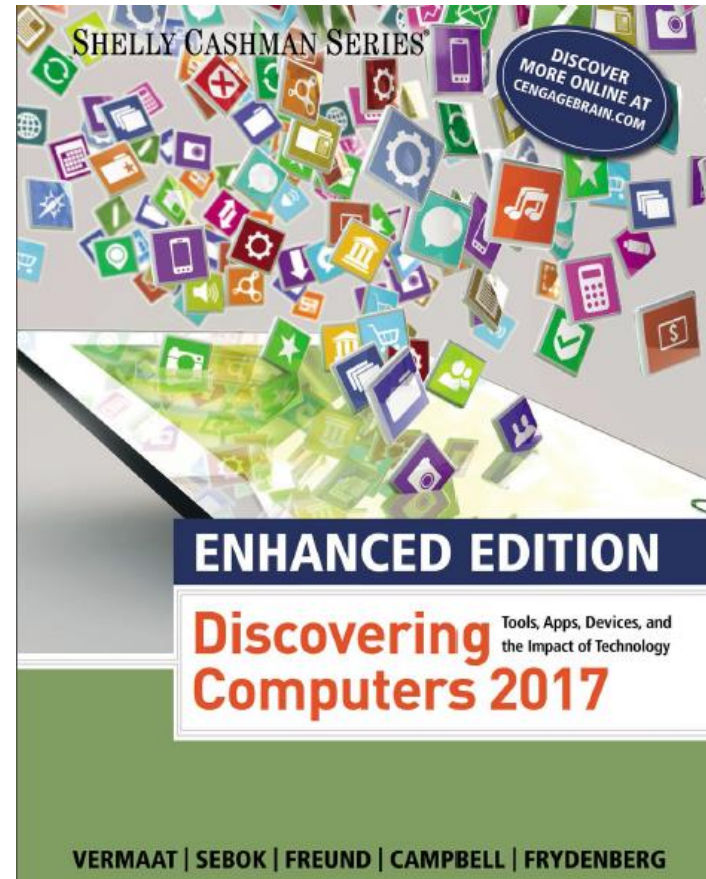
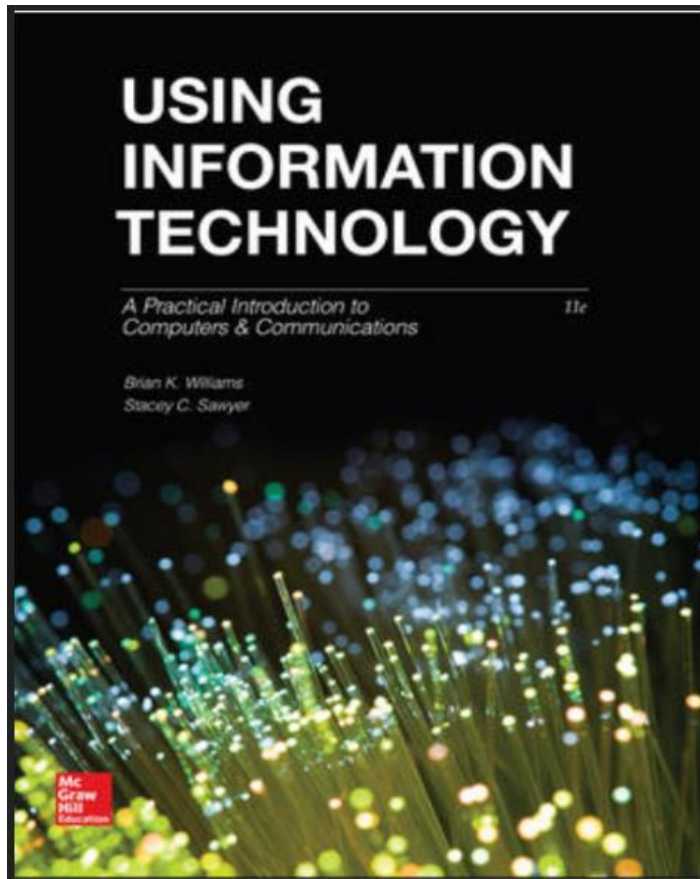
Lecture Objectives

- ▶ To acquaint students with the meaning of the term “Information and Communications Technology (ICT)” and its components.
 - ▶ To familiarize students with different ICT devices.
 - ▶ To discuss the positive and negative impact of ICT on the society.
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OUTLINE

- ▶ What is ICT
 - ▶ Component of ICT
 - ▶ ICT Devices
 - ▶ Positive and Negative impact of ICT
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Reference Texts



Introduction

- ▶ We are living in an age that is often referred to as the “Information Age”.
 - ▶ The society around us is often called an “Information Society.”
 - ▶ We are surrounded, indeed imprisoned, by “Information Technology” gadgets such as computers and smartphones and without them we would likely find life on Earth unbearable.
 - ▶ Students coming into the university, unless they are coming from another world, would undoubtedly have a working knowledge of IT gadgets such phones, ATM machines and computers.
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Introduction..

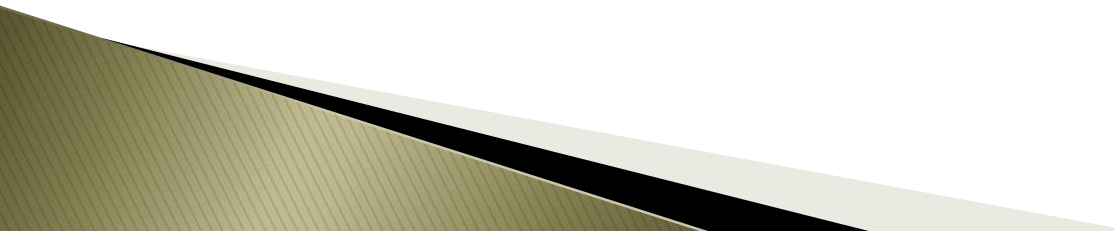
- ▶ Imagine a world without Information and Communication Technologies (ICTs).
 - there would be no smartphone, communication would have to be physical and face-to-face.
 - there would be no aero planes and cars, transportation has to be on foot or animals.
 - there would be no internet, we would have to resort to libraries.
 - there would no refrigerators, microwaves and air conditioners.
 - there would be no mobile banking and ATMS.
 - there would be no incredible medical innovations such as heart pace makers and laser surgeries.

- ▶ Clearly, the world without ICTs will be dark and unbearable.

The Acronym ICT

- **I:** Information refers to the knowledge obtained from reading, investigation, study or research.
 - Information helps us to fulfil our daily tasks.
- **C:** Communication is an act of transmitting messages. It is a process whereby information is exchanged between individuals using symbols, signs or verbal interactions.
 - Communication is important in order to gain knowledge.
- **T:** Technology is the use of scientific knowledge, experience and resources to create processes that fulfil human needs.
 - Technology is vital in communication.

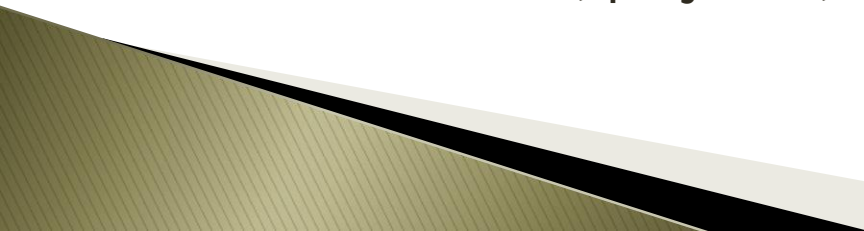
What is ICT?

- ▶ The term “Information and Communications Technology (ICT)” generally refers to the combination of technologies used for the collection, analysis, dissemination, transfer and storage of information.
 - ▶ ICT covers all forms of Computer and Communications equipment as well as the software used to create, store, transmit, receive, interpret, and manipulate information in its various formats.
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ICT Components

- ▶ ICT is composed of technologies for collection, Analysis, Dissemination, Storage and Transfer of Information.
 - **Computers:** Used for the collection and analysis of information.
 - **Broadcasting/Dissemination technologies:** used for disseminating information to human beings.
 - **Telecommunications equipment:** used for the transfer of information from one place to another.
 - **Storage devices:** Used for storing the information.
 - **Education technologies:** used to disseminate knowledge and information to academicians and learners.

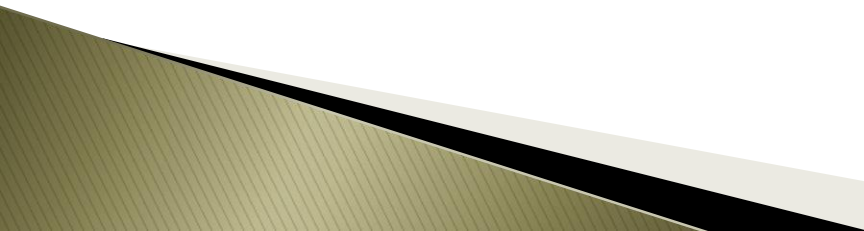
ICT Devices

- ▶ Computers
 - Desktop
 - Laptop
 - Tablet
 - ▶ Dissemination Equipment and Devices
 - Radios and TVs
 - Internet
 - ▶ Telecommunications Equipment and Devices
 - Hub
 - Modem
 - Routers
 - Mobile and Smart phones
 - ▶ Storage Devices
 - Hard disk
 - Flash drive
 - Memory Card
 - ▶ Device and Equipment used for Educational Purposes
 - EBooks reader, projector, smart boards, E-learning app
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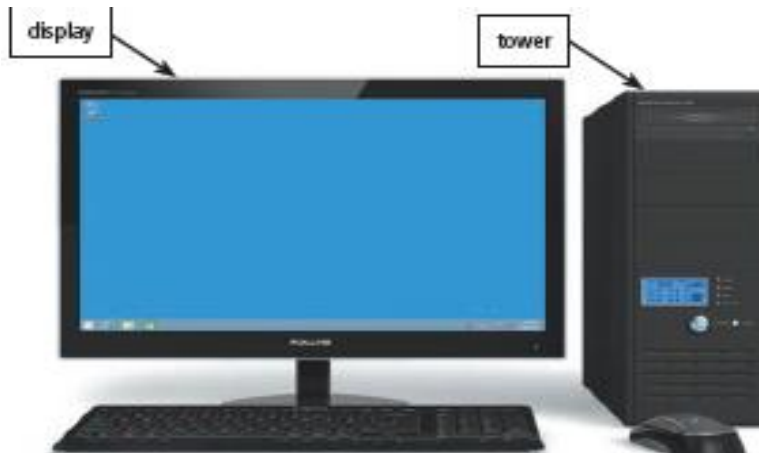
Computers

- ▶ Computers are the most important of all the different types of ICTs.
- ▶ A **computer** is an electronic device, operating under the control of instructions stored in its own memory, that can accept data (input), process the data according to specified rules, produce information (output), and store the information for future use.
- ▶ One popular category of computer is the Personal Computer(PC).
 - PC is a computer that can perform all of its input, processing, output, and storage activities by itself and is intended to be used by one person at a time.
 - Types of personal computers include laptops, tablets and desktop.

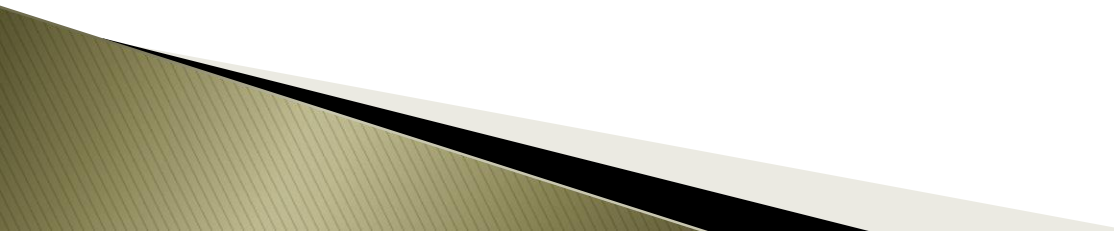
Laptops ,Tablets and Desktop

- ▶ A **laptop**, also called a notebook computer, is a thin, lightweight mobile computer with a screen in its lid and a keyboard in its base designed to fit on your lap and for easy transport.
 - ▶ A tablet is usually smaller than a laptop but larger than a phone. A **tablet** is a thin, lighter-weight mobile computer that has a touch screen.
 - ▶ A **desktop**, or desktop computer, is a personal computer designed to be in a stationary location, where all of its components fit on or under a desk or table.
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Laptops ,Tablets and Desktop..



Dissemination Equipment and Devices

- ▶ ICTs are all about information and for any information to be useful it ultimately needs to be disseminated.
 - ▶ Broadcasting technologies are the main technologies that are used to disseminate information to large audiences.
 - ▶ Dissemination equipment include radios, TVs and internet.
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Radios and Televisions

- ▶ Radio technology began in 20th century and its the most popular because of its extremely wide reach covering all parts of the world, including very rural areas.
 - They are very cheap.
 - They require small-sized equipment
 - They require low power.



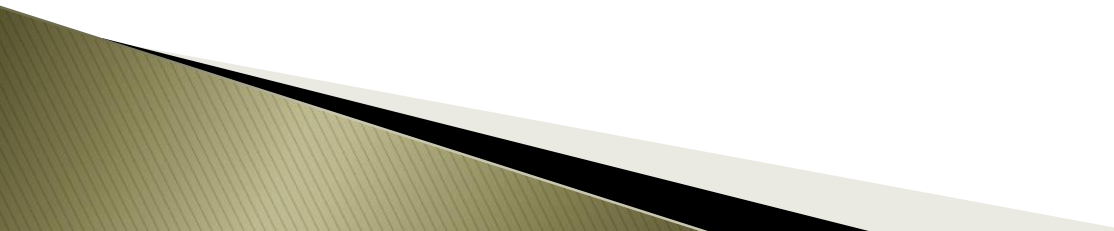
- ▶ Television sets appeared about 30 years after radios and are more captivating because of their fabulous video capabilities.
 - They are more expensive than radios.
 - They require larger equipment and higher power compared to radios.



Internet

- ▶ The Internet has brought new ways of disseminating information.
 - One of the major reasons business, home, and other users purchase computers and mobile devices is for Internet access.
 - It is medium of receiving news and entertainment over and above radio and television.
 - Internet is used to download radio and TV content.
 - Narrowcasting, podcasting.

Telecommunications Equipment and Devices

- ▶ Telecommunications refers to the broad field of long distance communications amongst human beings, between human beings and machines, and amongst machines.
 - ▶ Telecommunication equipment refers to devices that are used to transmit information such as sound, images and files over long distances.
 - ▶ Telecommunication devices include hub, routers, modem, mobile phones.
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Hub, Router, Modem

- ▶ Hub is devices commonly used to connect segments of a LAN. The Hub contains multiple ports.
- ▶ Router is hardware device used to receive, analyze and move incoming packets to another network.
- ▶ Modem is a device that connects a computer to the internet.



Smartphone

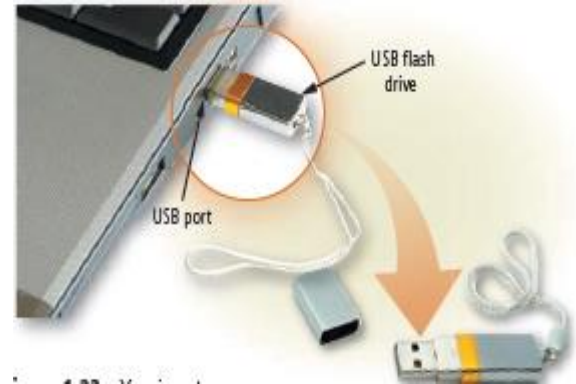
- ▶ A **smartphone** is an Internet-capable phone that usually also includes a calendar, an address book, a calculator, a notepad, games, and several other apps (which are programs on the smartphone).
- ▶ Other apps are available through an app store that typically is associated with the phone.



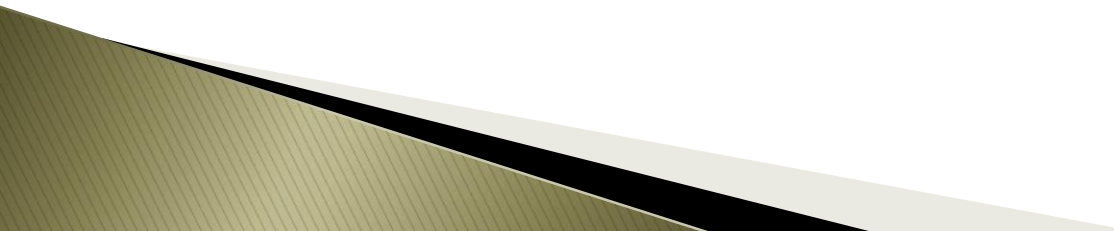
Storage Devices

- ▶ A storage device records (writes) and/or retrieves (reads) items to and from storage media.
- ▶ Storage devices often also function as a source of input and output because they transfer items from storage to memory and vice versa.
- ▶ Drives and readers/writers, which are types of storage devices, accept a specific kind of storage media.
 - For example, a DVD drive (storage device) accepts a DVD (storage media).
- ▶ Devices for storing information are important components of ICTs because of the increase dependence on information.

Storage Devices..



Devices and Equipment used for Educational Purposes

- ▶ Technologies and their devices that are used in education are also components of ICTs.
 - ▶ Multimedia technologies are used for education purposes to help teachers make their lessons more interesting and to improve the retentive memory of students.
 - ▶ Examples include projectors, e-reader and smart boards.
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Devices and Equipment used for Educational Purposes

- ▶ A projector is an output device that can take images generated by a computer and reproduce them by projection onto a screen, wall or another surface.
- ▶ A smart board is an interactive device that connects with a computer to display its contents.
 - It allows teachers and students to control the computer through touching the screen.
- ▶ E-reader device is a mobile electronic device that is primarily designed for the purpose of reading digital e-books and periodicals.
 - An e-book, or digital book, is an electronic version of a printed book, readable on computers and other digital devices.

Devices and Equipment used for Educational Purposes



Usage of ICTs in Everyday Life


► EDUCATION

- In education, teachers, students, researchers and school administrators benefits from the usage of ICT.

► BANKING

- In the banking, customers, businessman & bank administrator benefits from the usage of ICT.

► INDUSTRY

- Computers are used to facilitate production planning and control systems, to support chain management and to help in product design in the industrial sector. In the industrial sector, workers, researchers and administrator benefits from the usage of ICT.
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Usage of ICTs in Everyday Life

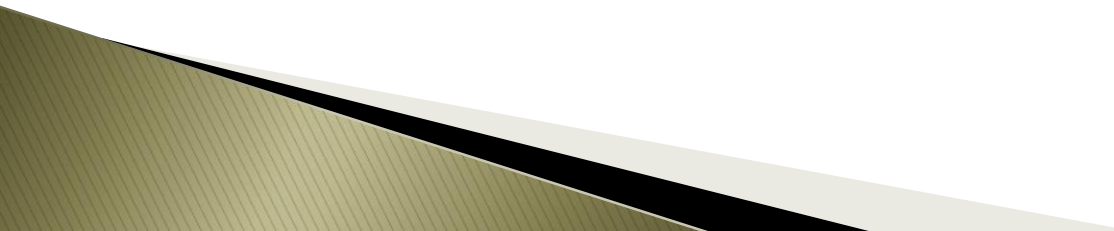
► E-COMMERCE

- E-commerce helps in boosting the economy. It makes buying and selling activities easier, more efficient and faster. For this application, computers, Internet and shared software are needed. In the e-commerce sector, customers, suppliers and employees benefit from the usage of ICT.

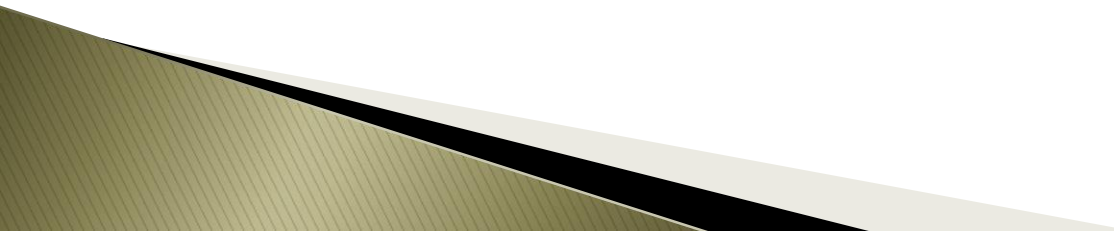
► BUSINESS

- Business organizations are probably the greatest users of ICTs because of the great gains that are achieved in efficiency and productivity when ICTs are effectively deployed.

Positive Impact of ICTs on Society

- ▶ Communication– Faster and at lower cost
 - ▶ Effective Sharing of Information
 - ▶ Daily route management
 - ▶ Social relationship
 - ▶ Self Employment
 - ▶ Developing Health Literacy
 - ▶ Usage of free time
 - ▶ Paperless Environment
 - ▶ Education
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Negative Impact of ICTs on Society

- ▶ Threat to human health
 - ▶ Isolation
 - ▶ Lack of privacy
 - ▶ Increased bullying
 - ▶ Job loss
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20 Most Important ICT Innovation of last 30 years

- ▶ The Internet–1990
- ▶ Photoshop–1990
- ▶ Portable GPS–1990
- ▶ Caller ID –1990
- ▶ Cloning –1996
- ▶ Email and Text Message –1992
- ▶ Netflix –1997
- ▶ Drones –1994
- ▶ Mobile Broadband–1991
- ▶ Hybrid Cars– 1997
- ▶ Flat Screen Display – 1997
- ▶ MP3Players– 1997
- ▶ Google Search – 1997
- ▶ International Space Station– 1998
- ▶ DVDs – 1998
- ▶ Facebook – 2004
- ▶ YouTube – 2005
- ▶ iPhone– 2007
- ▶ Bitcoin–2009
- ▶ Self-driving Cars – 2012

QUESTIONS !!!!