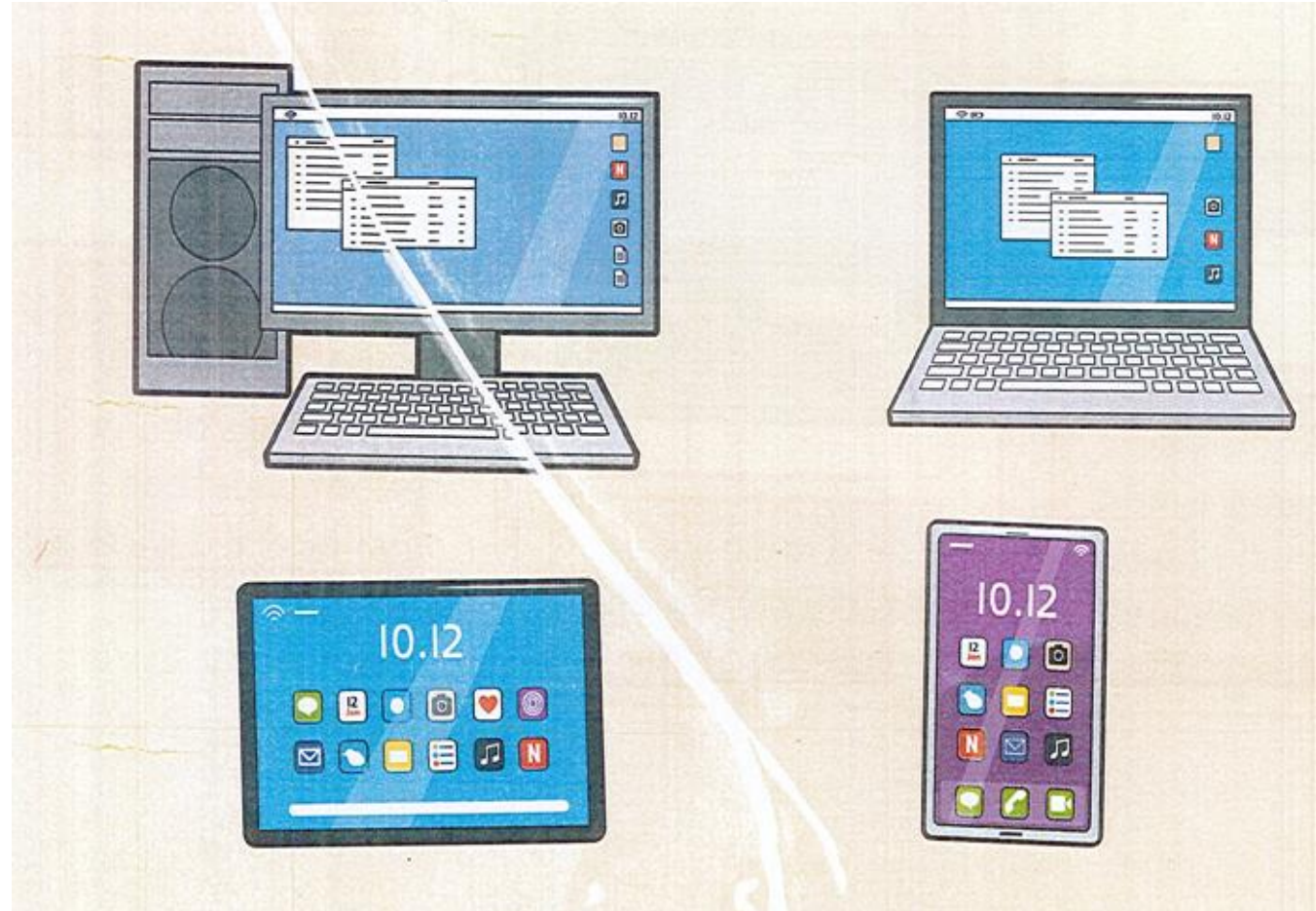


Unit – 5

Health and Safety

Write advantages and disadvantages of below digital devices.



Desktop	<ul style="list-style-type: none"> - High performance for heavy tasks - Large screen and keyboard - Easy to upgrade 	<ul style="list-style-type: none"> - Not portable - Requires more space and power - Can be expensive
Laptop	<ul style="list-style-type: none"> - Portable and convenient - Built-in battery - Good balance of power and mobility 	<ul style="list-style-type: none"> - Less powerful than desktops - Limited battery life - Harder to repair
Tablet	<ul style="list-style-type: none"> - Lightweight and portable - Touchscreen for easy use - Good battery life 	<ul style="list-style-type: none"> - Limited processing power - Not ideal for heavy tasks - Small screen
Smartphone	<ul style="list-style-type: none"> - Extremely portable - Multi-functional (calls, apps, camera) 	<ul style="list-style-type: none"> - Small screen - Limited storage and power

Can you get an injury from using digital devices ?


Body Area	Health Problems / Causes
Brain	Using devices close to bedtime interferes with <u>sleep</u> and <u>recovery</u> patterns.
Eyes	Prolonged screen use causes eye strain, dry eyes, and tiredness.
Neck and Shoulders	Incorrect device angle and lack of movement can cause injury and muscle strain.
Back	Poor seating positions and lack of movement lead to back pain.
Wrists	Long use of keyboard or mouse or wrong desk height can cause repetitive strain injury (RSI).
Legs	Sitting in the same position for too long can cause health problems.

How to prevent from injuries caused by digital devices ?

To prevent injuries from device use:

- Limit screen time.
- Stay active with regular exercise.
- Avoid using devices before bedtime

What is RSI ?

- 
- **RSI (Repetitive Strain Injury)** is an injury caused by repeating the same movements for long periods, often from using a keyboard or mouse.
 - It leads to pain, stiffness, or numbness in muscles and joints.

To prevent it: take breaks, maintain good posture



• Proper Use of a Desktop Workstation

When working at a desktop workstation, it's important to adjust the screen, desk, chair, and other equipment for comfort and good posture.

Key points include:

- Sit in a comfortable typing position.
- Keep knees bent at about 90 degrees.
- Align the top of the monitor with eye level.
- Support your back properly.
- Place the screen about an arm's length away.
- Keep the mouse within easy reach, allowing the arm to rest at 90 degrees.





- you should be in a comfortable typing position
- your knees should be angled at around 90 degrees
- the top of the monitor should be level with your eyes
- your back should be firmly supported
- the screen should be about an arm's length away
- your mouse should be at a comfortable distance with your arm able to rest at 90 degrees

- The **portability** of digital devices has raised injury risks since they are frequently used in poor body positions

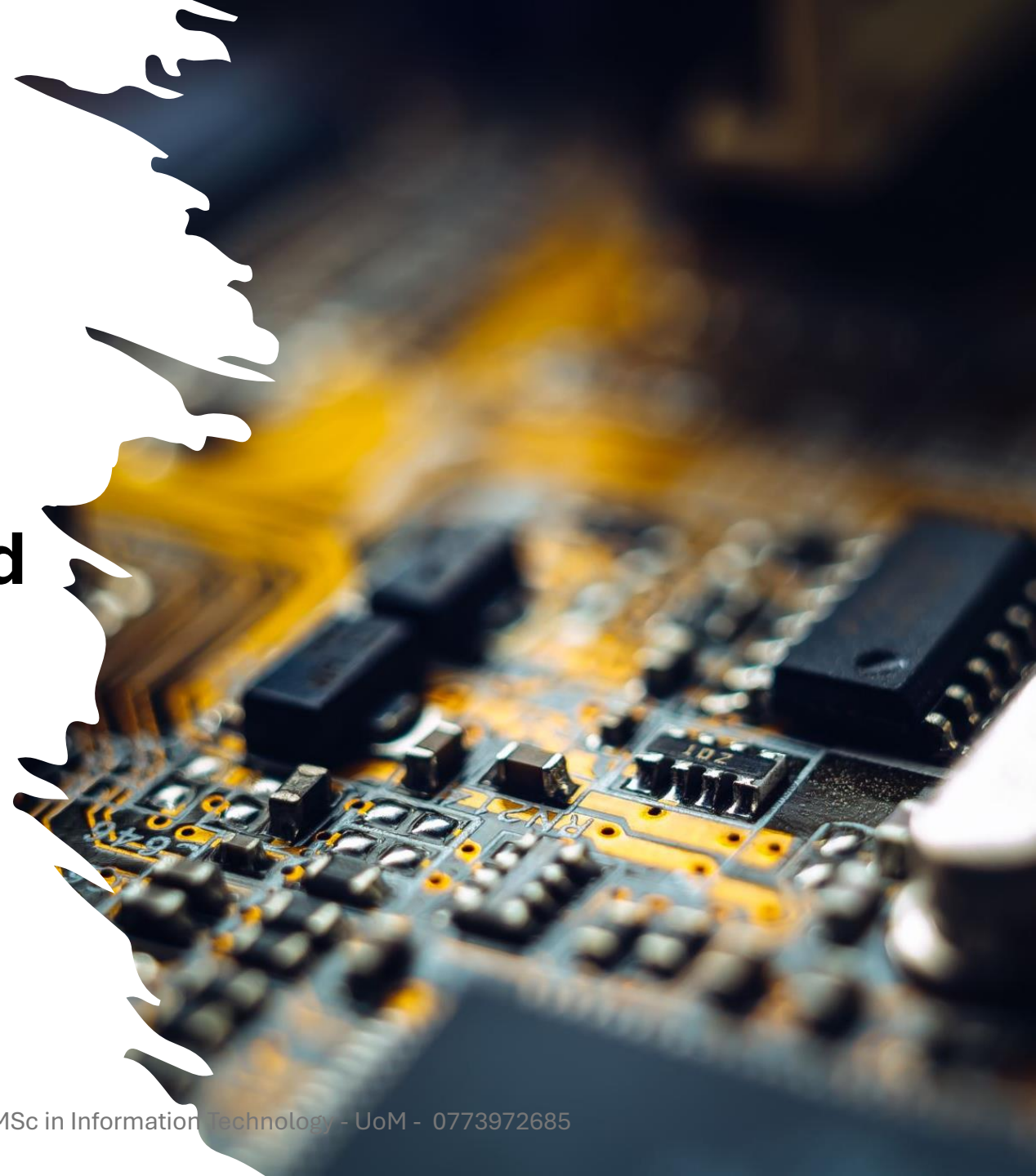
Digital Devices and Environment






What is E-waste ?

- **E-waste** is electronic waste from devices that cannot be repaired, while refurbished devices are repaired and sold cheaper than new ones



Reasons for Replacing Digital Devices

- People want the newest models to stay updated.
- Old devices don't work with new apps or games.
- Devices break easily if dropped or get wet.
- Parts wear out, and repairs can cost more than buying new.



Materials Found Inside Computing Devices

Computing devices contain various materials such as:

Ruthenium – used
in hard drives

Gold – for contacts
and connectors

Lead – for soldered
joints on circuit
boards

Copper – for circuit
boards and cables

Plastic – for
covering wires,
knobs, buttons,
and casings

Iron/Steel – for
casings, screws,
and hard drives