**Activity two Questions**

1. What is Micro-bit software stack?

* It is a runtime Device Abstraction Layer built with a free, open source Arm-Mbed IoT OS which includes the necessary features required to develop IoT products

1. Explain abstraction layer?

* The DAL is made up of 5 components, which are as follows.
* Core – High-level components holding the device, heap, font, listener, allocator and fiber.
* Types – Holds ManagedString, Image, Event and PacketBuffer
* Drivers – A physical hardware component for example buttons, compass, display etc.
* Bluetooth – Holds the code for Bluetooth Low Energy (BLE)
* ASM – 4 functions which is implemented in assembly, they are swap\_context, save\_context, save\_register\_context, restore\_register\_context,

1. Define accelerometer.

* Detects falling, seismic activities or flip phone to snooze. It also detects free fall (gravity) in stable position

1. What are the functions of fibers?

* It enables the micro:bit for concurrent and asynchronous execution

1. What are the differences between fibers and threads?

* Threads uses pre-emptive multi-tasking whereas threads are co-operative when multitasking

1. What is meant by preemptive multitasking?

* Multitasking that allows sharing of OS and system resources between processes.

1. What is the use of yield function?

* A function used whilst multithreading forcing the processor to give control of the current running thread by sending it to the end of the running queue of the same scheduling priority.

1. Expand ISR and explain.

* Interrupt Service Routines portions of a program code that handles the interrupt requests

1. What is the use of sleep() in uBit?

* Gives yield control back to the scheduler

1. How press button event is handled?

* Does whatever is registered in the button callback