Experiment – 1   Functional Testing of Devices

Aim: Flashing the OS on to the device into a stable functional state by porting desktop environment with necessary packages.

Components Required : Raspbeery Pi kit , SD card , card Reader , Ethernet cable , keyboard , mouse , Operating system , Power supply , AC to DC Adapter , Socket, HDMI 2 VGA cable.

Procedure :

Step 1 : We need to insert SD card into a card reader and format it because to avoid unpredictable issues that may occur during data read/write on any device.

Step 2: After formatting the SD card then download the Raspbeery Pi OS and Raspbeery Pi Imager and copy the Raspbeery Pi OS into the SD card.

Step 3: For interfacing the screen and the Raspbeery Pi we need use HDMI 2 VGA cable. Connect the VGI cable to the CPU and other end is connected to Raspbeery Pi kit . In order to give the input program we are connecting the Keyboard and mouse to Raspbeery Kit USB ports. For internet access connect the Ethernet pin and on the power supply.

Step 4 : When the system starts opening ,for flashing the OS into Raspbeery Pi some basic system settings must be done . Go to the preferences and click on Raspberry Pi configuration and the whole description of Raspbeery Pi Os is visible and go to interfaces and click ok on all then we can observe the flashing of Raspbeery Pi OS .
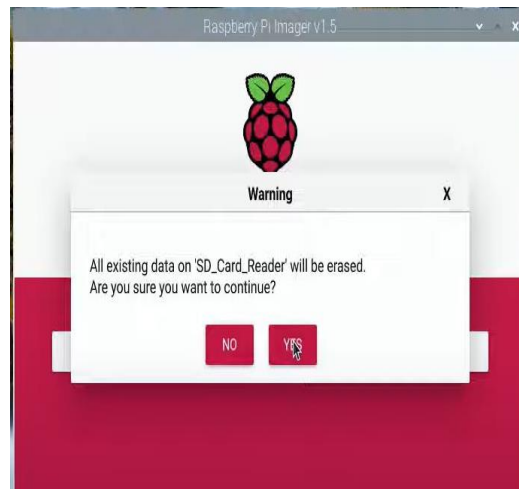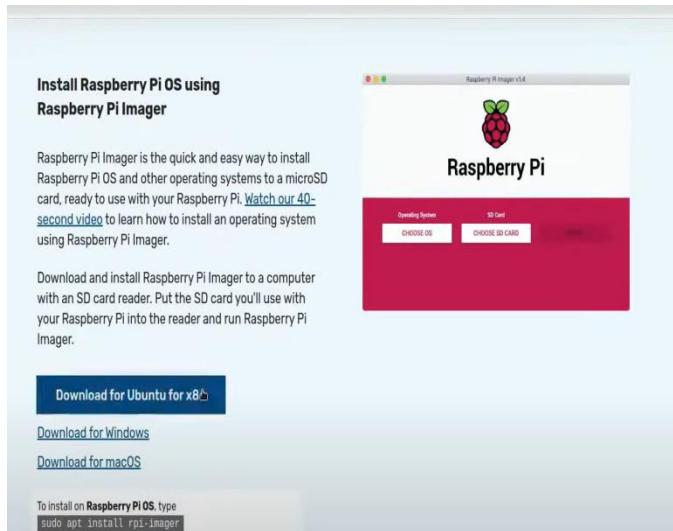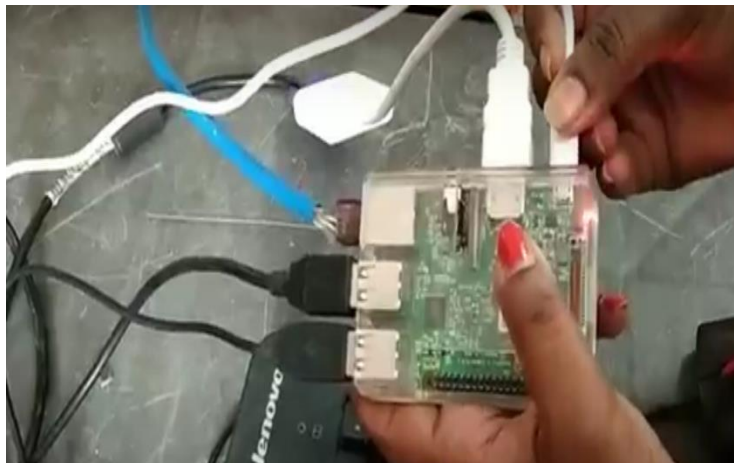
Output :

Raspbeery Pi Kit

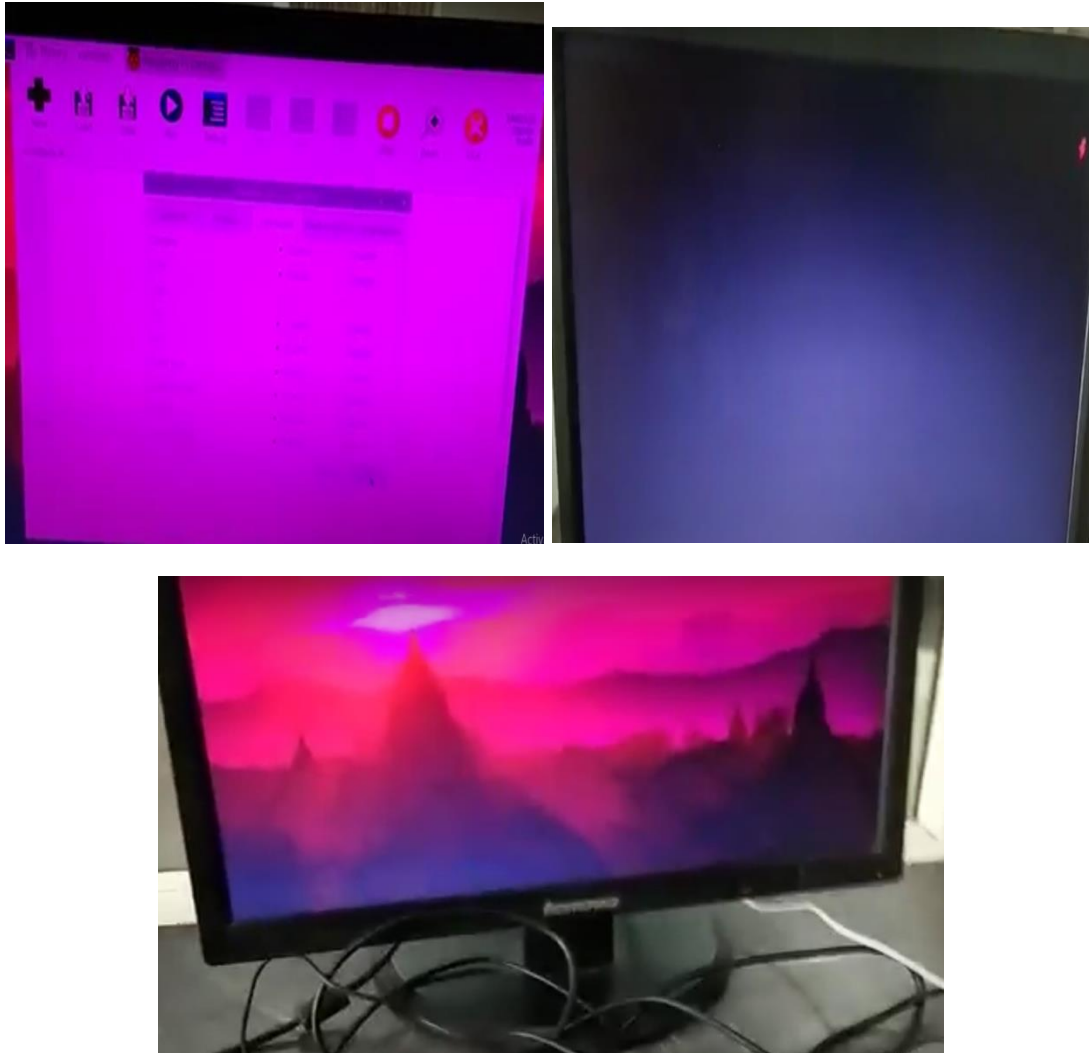**Inserting the SD card into card reader and Formatting the SD card**
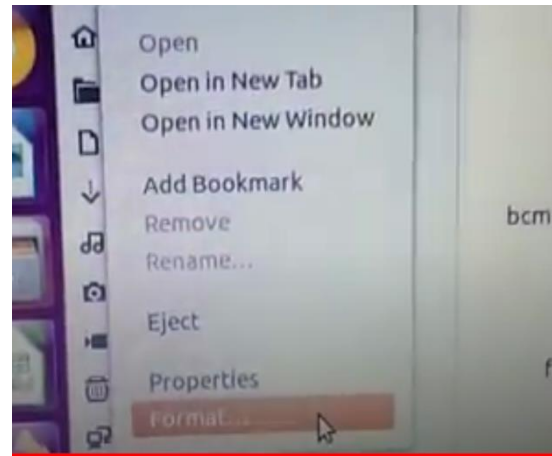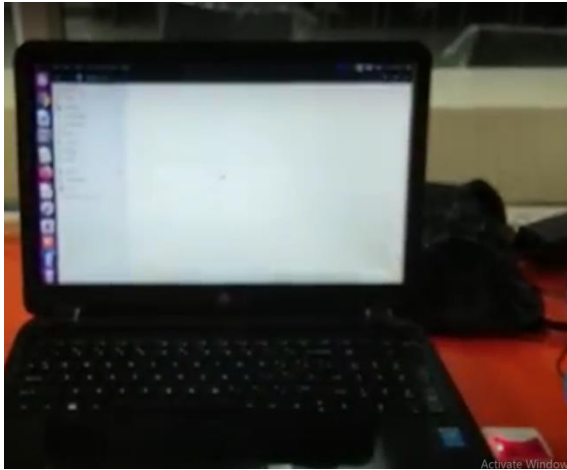
Installation of Raspbeery Pi Imager and Operating System(OS) into SD card

Connecting the interfaces required for flashing the Raspbeery Pi OS

Basic system settings and on Raspbeery Pi OS and flashing it

Result : In this way Flashing the OS on to the device into a stable functional state by porting desktop environment with necessary packages is observed.