Q.1) What is Raspberry Pi?
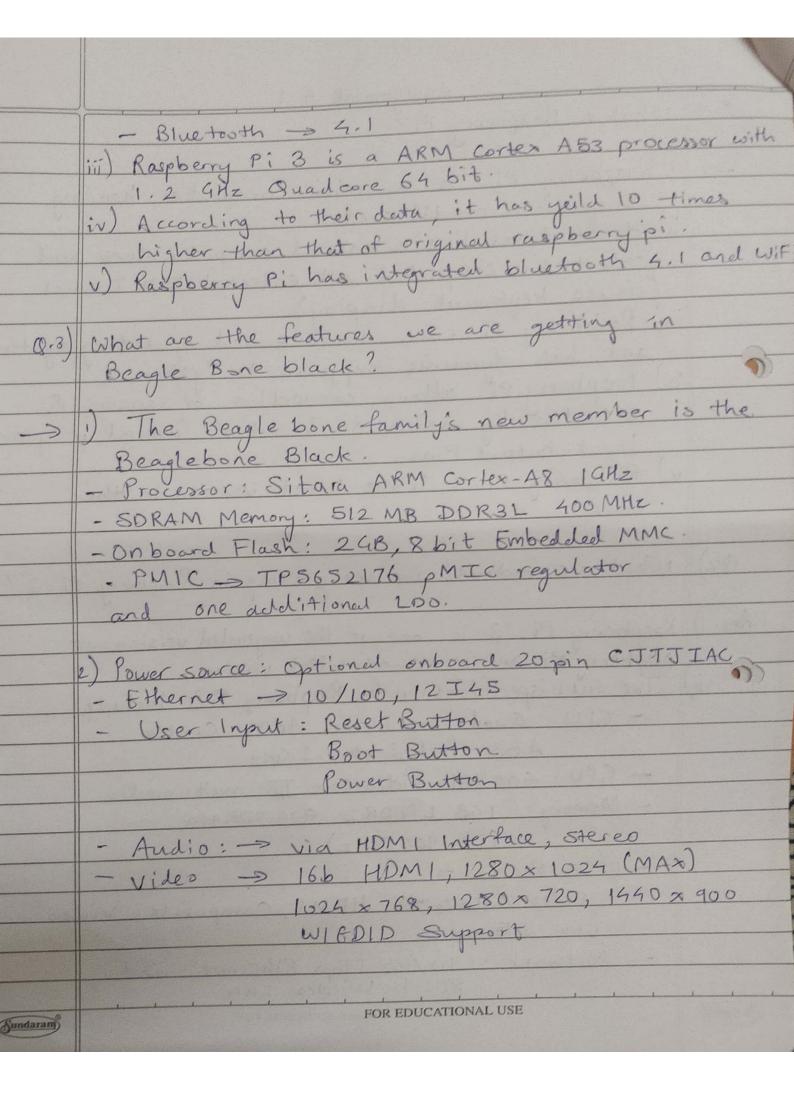
→ i) Raspberry Pi is a mini computer having size of a credit card.

ii) It functions like a normal computer does and needs to be computed with external IO Devices (mouse, keyboard, display).

iii) Raspberry Pi runs linux based operating system and has dynamic support to Python.

iv) Raspberry Pi allows connection of sensors & actuators by means on board of General purpose Input-output Pins.

v) Raspberry Pi 3 is the latest version in the market.

Q2) What are features we are getting in Raspberry Pi 3?

Ans. i) Raspberry Pi 3 is one of the upgraded version of Raspberry Pi and is second-latest version.

ii) The full specification for Raspberry Pi3 include:

- CPU: Quad-core 64 bit ARM Cortex A53 clocked at 1.2 GHz.
- GPU: 400 MHz video core IV multi media.
- Memory: 1 GB LPDDR2 900 SDRAM. (i.e. 900 MHz)
- USB Ports: 4
- Video Outputs → HDMI, Composite video via 3.5 mm.
- Network: 10/100 Mbps Ethernet and 802.11 Wireless LAN.

— Bluetooth → 4.1

iii) Raspberry Pi 3 is a ARM Cortex A53 processor with 1.2 GHz Quadcore 64 bit.

iv) According to their data, it has yeild 10 times higher than that of original raspberry pi.

v) Raspberry Pi has integrated bluetooth 4.1 and WiF

Q.3) What are the features we are getting in Beagle Bone black?

→ 1) The Beagle bone family's new member is the Beaglebone Black.

- Processor: Sitara ARM Cortex-A8 1GHz
- SDRAM Memory: 512 MB DDR3L 400 MHz.
- On board Flash: 2GB, 8 bit Embedded MMC.
- PMIC → TPS652176 pMIC regulator and one additional LDO.

2) Power source: Optional onboard 20 pin CJTJ IAC
- Ethernet → 10/100, 12 I45
- User Input : Reset Button
  - Boot Button
  - Power Button

- Audio : → via HDMI Interface, stereo
- Video → 16b HDMI, 1280 × 1024 (MAx)
  1024 × 768, 1280 × 720, 1440 × 900
  WIEDID Support

Q.4 Difference between Beagle Bone Black and Raspberry Pi3?.

Form Factors	Raspberry Pi 3	Beagle Bone Black.
Processor	1.2 GHz, 64-bit Quad Core ARMV5 CPU	1 GHz ARM Sitara AM 335g.
Architecture	64-bit	32 bit
Instruction Set	ARM V8	ARM V7
RAM	1 GB LPDDR2	512 MB DDR3L 4GB onboard
Storage	SD	cMMc, Micro SD 4 GB on Board

- The Raspberry Pi 3 has more RAM, it is also the slower DDR2 RAM, whereas Beaglebone Black has DDR3 RAM.

- Similarly, Raspberry Pi has no onboard storage but the Beagle Bone has 4GB onboard storage.