1. Astro Pi is a space craft designed based on:

- ☐ STM32
- ☐ Arduino
- ☑ Raspberry Pi
- ☐ ESP32

2. How many wires used in I2C communication except VCC and GND?

- ☑ 2
- ☐ 1
- ☐ 0
- ☐ 4

3. Which of the following about the I2C protocol is NOT correct:

- ☐ I2C has two lines, SCL and SDA
- ☐ SCL is used for clock and SDA is used for data
- ☑ I2C follows master slave architecture
- ☐ I2C is a half duplex communication

4. Which of the following about the SPI protocol is NOT correct:

- ☐ SPI is a four wire protocol
- ☑ SPI supports clock stretching
- ☐ I2C is slower than SPI
- ☐ SPI is full duplex communication

5. Which of the following program isn't used for designing a PCB?

- ☐ Fritzing
- ☐ KiCad
- ☐ Solid Works PCB Suite
- ☑ Microsoft Word

6. Which one of the following about OBC PCB is NOT correct:

- ☐ We use Raspberry Pi as the main MPU
- ☑ Raspberry Pi and sensors communicates over SPI
- ☐ SDS011 is a PM2.5 Dust sensor
- ☐ OBC PCB includes temperature, humidity and pressure sensors.

7. Which one of the following about Raspberry Pi  GPIOs is NOT correct:

- ☑ TX pin of the Raspberry Pi should connect to the TX pin of the sensor.
- ☐ RX pin of the Raspberry Pi should connect to the TX pin of the sensor.
- ☐ All GND pins should be connected to the Ground.
- ☐ 3v3 and 5v are the power lines on the Raspberry Pi.

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- ☑ Printed Circuit Board
- ☐ Project Control Board
- ☐ Power Control Board
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