Ans to the Q No 1

To degin the coal mining system given in the ques. two different input sensor are required. As the question One sensor takes input to measure the temperature and another sensor take input to masure humidity. So temperature sensor and humidity sensor are used to produ the desired output. In this case, external input interface pins are used for sencing temperature and humidity. For this temperature and humidity sensor calibration circuit is used which is an interfacing for the sensor input. Here calibration circuit is used as an interface to convert the sensor inputs into machine understand language, so that the machine can understand the input measure temperature and humidity.

Then this converted sensor inputs are passed to a microcontroller to compute the actual program Microcontroller is used for the low end input or sensor input as the task is. After that drive the measured values by actuator of temperature and humidity will show output in the monitor. And this is the mechanism for the required coal mining system

Ans to the Q No 2

USB Type C is far better than its predecessor USB. It offers the speed of 10Gbps which is almost double transfer speed of its predecessor USBB It offered 20v and 5A power while charging as the other USB 5v and 1.5A. USA C allows to plug in any device which the others USB not. USB type C cable is used to charge laptop which is impossible to other USB. Type C is also capable of doing multiple function mostly used because of its efficiency in data encoding which Unable it to do in faster way. Type C is better than it predecessors in all sector.