1. Define Microprocessor:
A microprocessor is a multipurpose, programmable, clock-driven, register-based electronic device that reads binary instructions from a storage device called memory, accepts binary data as input and produces output data according to those instructions, and provides as output.

2. What is Hardware and Software?
The physical components of the system i.e. computer are called Hardware. Group of programs is called Software.

3. Why the microprocessor is viewed as a programmable device?
Micro processor is programmable because it can be instructed to perform given tasks within its capability. Microprocessor is designed to understand and execute many binary instructions.

4. What is Central Processing Unit (CPU)?
And peripheral devices. The CPU communicates with the computer. Central processing unit controls the operation of the computer. In a microcomputer the CPU is a microprocessor. The CPU fetches binary coded instructions from memory, decodes the instructions into a series of simple actions and carries out these actions in a sequence of steps.

5. Is a chip a diode?
A chip is an integrated circuit. Generally, it is a small piece of silicon onto which transistors making up the microprocessor have been etched. A chip might be as large as an inch square or can contain tens of millions of transistors. Simpler processors might consist of a few thousand transistors etched onto a chip just a few millimeters square.

6. Is the System Bus?
The System bus is a communication path between the microprocessor and peripherals. It is nothing but a group of wires to carry bits.

7. What is Address Bus?
The address bus consists of 16, 20, 24, or 32 parallel signal lines. On these lines the CPU sends out the address code. The address code is the number of the location that is to be written to or read from. The number of address lines determines the number of memory locations that the CPU can address. If the CPU has N address lines, then it can directly address 2^N memory locations. Simply, we can say that Address Bus is used to carry the address.

8. What is Data Bus?
The data bus consists of 8, 16, 32, or 64 parallel signal lines. The data bus lines are bidirectional. This means the CPU can read data in from memory or from a port on these lines, or it can send out data to memory or to a port on these lines. Simply we can say that data bus is used to carry the data.

9. What is Assembly Language?
A medium of communication with a computer in which programs are written in mnemonics. Binary instructions are given abbreviated names called mnemonics, which form the assembly language for a given processor.

10. What is Machine Language?
The binary medium of communication with a computer through a designed set of instructions specific to each computer.

11. What is Block-Slice processor?
For some Applications, general-purpose CPUs such as the 8088B and 840 are not fast enough or do not have suitable architecture for specific tasks. For these applications, several manufacturers produce devices which can be used to build the custom CPU. This family includes 4-bit ALUS, multipliers, comparators and other parts needed for custom building a CPU. The slice comes from that fact that these parts can be connected in parallel to work with 8 bits, 16-bit words, or 32 bit words.

12. What is microcontroller?
Microcontroller is a Device that includes microprocessor, memory and I/O signal lines on a single chip fabricated using VLSI technology.

13. What are the main applications of Block-Slice processor?
It is used in a variety of applications such as appliances, automobiles, industrial process and control applications.

14. What are the uses of microprocessors in Medical Instrumentation Field?
Patient Monitoring in Intensive Care Unit, Pathological Analysis and the measurement of parameters like blood pressure and temperature.

15. Define Real Time Systems:
Real-time Systems are those in which time is essential as the correctness of the outputs, although this does not mean they have to be "fast systems".

16. List the limitations of 8-bit microprocessor:
- Lower Execution Speed
- Less memory size
- Few instructions are available

17. What do you mean by Data Width?
Data Width is the width of the data bus. An 8-bit ALU can add/subtract/multiply etc., two 8-bit numbers. In many cases, the external data bus is the same width as the ALU, but not always. The 8088B has a 16-bit ALU but 8-bit, while the modern Pentium fetch data 64-bits at a time for their 32-bit ALUs.

18. Specify the complete bit configuration of 8088 Block Register Map:
- S-Flag
- IF/DF
- TF
- CF
- AC
- OF
- P-Flag
- Carry Flag
- Arithmetic Flag
- Overflow Flag
- Parity Flag
- Less Than Flag
- Equal To Flag
- Greater Than Flag
- Greater-than-or-Equal-to Flag

19. List the four operations performed commonly by MPU (Microprocessor Unit):
- Memory Read: Reads data (or instructions) from memory.
- Memory Write: Writes Data (or instructions) into memory.
- Read I/O: Accepts data from input devices.
- Write I/O: Sends data to output devices.

20. Write about RST pins in 8088:
In 8088, these RST pins are available, such as INT 7, INT 6, 5, 4, 3. RST 5, 6, 7 represents Restart interrupt signal. These are vectored interrupts that transfer the program control to specific low memory locations. They have higher priorities than the INTB interrupt. Among these three priority, the order is 7, 6, 5, 4.