

- QTE: 1. Figure should be Neat and labeled.
 2. All Questions are compulsory.
 3. Right side indicates marks.

1 Answer any 4 from following.

91

(20)

- 1. What are the components of computer?
- 2. Write a short note on structure & buses
- 3. Explain the functions of computer.
- 4. What is Bus Interconnection?
- 5. Explain the types of RAM
- 6. Explain the types of ROM.
- 7. What are the characteristics of Memory System.
- 8. Explain ARM architecture

2 Answer any 4 from following.

92

(20)

- 1. Write a short note on BCD
- 2. Explain the history & evolution of 32-bit microcontroller.
- 3. Explain the concept of scheduling.
- 4. Explain the working of RTOS.
- 5. Convert the given Hexadecimal numbers into equivalent Decimal numbers:

- 1. $(A58B)_{16}$
- 2. $(89FF)_{16}$

Solve:

- 1. $(1010)_2 + (1001)_2$
- 2. $(11000)_2 + (10101)_2$

Solve:

- 1. $(100011)_2 * (1101)_2$
- 2. $(010010)_2 * (1100)_2$

Write a short note on RISC.

3 Answer any 4 from following.

93

(20)

- 1. Explain WIFI
- 2. Write a short note on EDA tools.
- 3. Draw the block diagram of 8051.
- 4. Explain Timers & Counters.
- 5. Explain Interrupt Management.
- 6. Write a short note on PCB layout.
- 7. Explain Wire Fire.
- 8. Explain external peripheral devices.

4 Answer any 3 from following.

94

(15)

- 1. Explain the SRAM & DRAM
- 2. Write a short note on Gray Code.
- 3. Explain Serial data I/O interconnection.
- 4. Explain cache memory & its principles.
- 5. Explain development system for microcontroller.
- 6. Explain the Digital components.