

- NOTE: 1) Diagrams should be Neat and labeled.
2) All Questions are compulsory.
3) Right side indicates marks.

Q1. Answer the following (Any two)

[10]

- Write what is embedded system and give application areas of embedded system.
- Explain the difference between Big endian and Little endian?
- Explain USB as communication interface with diagram?
- Explain programmable logic devices with its type and advantages?

Q.2. Answer the following (Any two)

[10]

- Explain any five characteristics of embedded system?
- Write short note on communication interface used in automobiles.
- Explain non-operational quality attributes?
- Write a short note on washing machine.

Q.3. Answer the following (Any two)

[10]

- Explain structure of embedded program?
- Write a short note on compiling process.
- Explain Remote-debugger and all its commands?
- Explain simulator, oscilloscope and logic analyzer?

Q.4. Answer the following (Any two)

[10]

- Explain RAM and ROM memory with their types?
- Explain memory map and interrupt map?
- Write a short note on checksum.
- Explain flash memory in detail?

Q.5. Answer the following (Any two)

[10]

- Write a short note on embedded operating system.
- Explain watchdog timer in detail?
- Write a short note scheduling points.
- Explain task and task state in detail?

Q.6. Answer the following (Any two)

[10]

- Explain types file generated in process of cross compilation?
- Write a short note disassembler and decompiler.
- Explain life-cycle of embedded system development?
- Explain IDE in detail?

Q.7. Answer the following (Any three).

[15]

- a. Write a short note on COTS.
- b. Explain any five operational quality attributes?
- c. Explain infinite loop in detail?
- d. Write a short note on CRC.
- e. Explain deadlock and priority inversion in detail?
- f. Define the following

I. Sensor

II. Actuator

III. I2C

IV. NVRAM

V. PROM

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