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Roll No. .....

6th Sem / Eltx

Subject:- Embedded Systems

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 What does ISR stand for?

a) interrupt standard routine
b) interrupt service routine
c) interrupt software routine
d) interrupt synchronous routine

Q.2 Which of the following file extension that is loaded in a microcontroller for executing any instruction?

a) .c b) .txt
c) .hex d) .doc

Q.3 Which memory storage is widely used in PCs and Embedded Systems?

a) EEPROM b) Flash memory
c) SRAM d) DRAM

Q.4 What does ICE stand for?

a) in-circuit EPOM b) in-code emulation
c) in-circuit emulation d) in-code EPROM

Q.28 What is Scan Cycle?

Q.29 What are the errors in an Embedded System?

Q.30 What are the different types of Buses used by Embedded Systems?

Q.31 Write the difference between PIC and AVR.

Q.32 Discuss the steps involved in interfacing of 7 - segment display.

Q.33 What are the types of Embedded Systems?

Q.34 Explain the term Simulator.

Q.35 What is the Real-time operating system?

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Explain the embedded system architecture with diagram.

Q.37 Compare 8051 microcontrollers With PIC microcontroller.

Q.38 Draw the block diagram of PIC microcontroller and explain each block in detail.

Q.5 Which is the first microcontroller?

a) 8051 b) Arm

c) TMS 1000 d) Intel 4004

Q.6 8051 series has how many 16 bit registers?

a) 2 b) 3

c) 1 d) 0

Q.7 8051 microcontrollers are manufactured by which of the following companies?

a) Atmel b) Philips

c) Intel d) All of the mentioned

Q.8 How many data lines are there in a 16*2 alphanumeric LCD?

a) 16 b) 8

c) 1 d) 0

Q.9 Which of the following architecture is followed by general-purpose microprocessors?

a) Von Neumann architecture

b) Harvard architecture

c) None of the mentioned

d) All of the mentioned

Q.10 Z80 is mainly based on

a) Intel 8080 b) MIPS

c) TIMS d) 8051

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 What is the advantage of ISR?

Q.12 What is a Watchdog Timer?

Q.13 Define term Reliability.

Q.14 What is pipelining?

Q.15 What is a microcontroller?

Q.16 What is Embedded C concatenation operator?

Q.17 Define scan cycle.

Q.18 What is emulator.

Q.19 What is cross compiler.

Q.20 What is a CAN Bus?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Explain what are real-time embedded systems?

Q.22 Explain what is the need for an infinite loop embedded systems?

Q.23 What is interrupt latency? How can you reduce it?

Q.24 How the transfer C or ASM code in microcontrollers?

Q.25 Define the term memory Management.

Q.26 Define the term compiler.

Q.27 What are the disadvantages and disadvantages of Embedded Systems?