No. of Printed Pages : 4
Roll No. .....

223845C

4th Sem / Artificial Intelligence & Machine Learning

Subject : Embedded System & Design

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Which forms the heart of the operating system? (CO3)

a) Kernel b) Applications

c) Hardware d) Operating System

Q.2 Which of the following provides an efficient method for transferring data from a peripheral to memory? (CO1)

a) DMA Controller b) Serial port

c) Parallel port d) Dual port

Q.3 When AVR wakes up, then the value of PC becomes? (CO3)

a) 00H b) 000H

c) 0000H d) 00000H

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain AVR mirocontroller with the help of block diagram. (CO2)

Q.24 Compare PIC microcontroller with 8051 microcontroller. (CO3)

Q.25 Draw the embedded system architecture and explain it. (CO1)

Q.4 Embedded systems are: (CO1)

a) General purpose b) Special purpose

c) Both a and b d) None

Q.5 Which of the following provides a buffer between the user and the low-level interfaces to the hardware? (CO2)

a) Operating system b) Kernel

c) Software d) Hardware

Q.6 The time taken to respond to an interrupt is known as (CO2)

a) Interrupt delay b) Interrupt time

c) Interrupt latency d) Interrupt function

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 AVR stands for _____. (CO3)

Q.8 What is the use of emulator? (CO2)

Q.9 What do you understand by general-purpose systems? (CO1)

Q.10 What is cross compiler? (CO3)

Q.11 What is an Embedded System? (CO1)

Q.12 Give one application of Embedded systems. (CO1)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Differentiate embedded system with non-embedded system. (CO1)

Q.14 Write a note on Pipelining. (CO2)

Q.15 Compare AVR and PIC Microcontrollers. (CO2)

Q.16 Give any four characteristics of embedded systems. (CO3)

Q.17 Write a note on I/O port programming of PIC. (CO2)

Q.18 Discuss the use of timers in embedded system? (CO1)

Q.19 Write a note on the history of Embedded system. (CO1)

Q.20 Write a note on Real Time Clock. (CO1)

Q.21 What are the different steps involved in interfacing of Relay? (CO2)

Q.22 Name and discuss about the Software used in microcontrollers (CO2)