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6th Sem / Branch : Electronics & Communication
Sub. : Embedded System

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Which of the following process architecture support easier instructions Pipelining? (CO3)

a) Harvard b) Von Neumann
c) Both A and B d) None

Q.2 The time taken to respond to an interrupt is known as (CO2)

a) Interrupt delay b) Interrupt time
c) Interrupt latency d) Interrupt function

Q.3 Which part of the software is transparent to the interrupt mechanism? (CO3)

a) Background
b) Foreground
c) Both background and foreground
d) Lateral ground

Q.4 Which of the following speed up the testing process? (CO1)

a) Kernel
b) Software

c) Application manager
d) Program debugging tools

Q.5 Which forms the heart of the operating system? (CO3)

a) Kernel b) Applications
c) Hardware d) Operating system

Q.6 Which of the following can make the application program hardware independent? (CO2)

a) Software b) Application manager
c) Operating system d) Kernel

Q.7 Embedded systems are: (CO1)

a) General purpose b) Special purpose
c) Both A and B d) None

Q.8 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.9 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.10 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

SECTION-B

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

Q.11 Name some Software used in microcontrollers. (CO4)

Q.12 Name some factor affecting embedded systems. (CO1)

Q.13 What is SUB Instruction. (CO4)

Q.14 Define scan cycle. (CO2)

Q.15 PIC stands for _____. (CO3)

Q.16 What is a general purpose system? (CO1)

Q.17 Name the buses used for communication in embedded system. (CO1)

Q.18 Define any one comparison Instruction. (CO1)

Q.19 Control in SCADA is _____. (CO1)

Q.20 What is emulator. (CO2)

SECTION-C

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

Q.21 Define the term compiler. (CO2)

Q.22 Define the term Memory Management. (CO1)

Q.23 Give the basic introduction of Software used in microcontroller. (CO2)

Q.24 What are the Programming concepts of microcontrollers? (CO3)

Q.25 Classify the types of processors in Embedded System. (CO1)

Q.26 Explain the term Simulator. (CO3)

Q.27 Compare embedded system and non-embedded system with examples. (CO1)

Q.28 Discuss the steps involved in interfacing of 7-segment display. (CO4)

Q.29 Explain what is the need for an infinite loop in embedded systems? (CO1)

Q.30 Explain the term Simulator. (CO3)

Q.31 What are the selection criteria of a microcontroller? (Co1)

Q.32 Discuss the steps involved in interfacing of 7 segment display. (CO4)

Q.33 Classify the types of processors in Embedded System. (CO3)

Q.34 Discuss about Pipelining. (CO2)

Q.35 How to transfer C or ASM code in microcontrollers? (CO3)

SECTION-D

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

Q.36 Compare 8051 microcontroller with PIC microcontroller. (CO3)

Q.37 Explain the embedded system architecture with neat and clean diagram. (CO1)

Q.38 Draw the block diagram of AVR microcontroller and explain each block in detail. (CO2)