

Microcontroller and Embedded Programming

Time: 1hour

Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	The amount of memory in a real time system is generally _____.
Option A:	less compared to PCs
Option B:	high compared to PCs
Option C:	same as in PCs
Option D:	they do not have any memory
Q2.	Real time systems must have _____.
Option A:	preemptive kernels
Option B:	non preemptive kernels
Option C:	preemptive kernels or non preemptive kernels
Option D:	neither preemptive nor non preemptive kernels
Q3.	What does CISC stand for?
Option A:	Circuit Instruction Set Computer
Option B:	Complex Instruction Set Computer
Option C:	Complex Instruction Set Circuit
Option D:	Compact Instruction Set Computer
Q4.	Which of the following is a feature of Embedded System?
Option A:	It is used for specific application
Option B:	Has large memory
Option C:	Power consumption is more
Option D:	They do not have minimal user interface
Q5.	In real time operating system
Option A:	all processes have the same priority
Option B:	a task must be serviced by its deadline period
Option C:	process scheduling can be done only once
Option D:	kernel is not required
Q6.	ACALL instruction allows specifying _____ address in the instruction and calling subroutine within _____ program memory block.
Option A:	2byte, 3K
Option B:	11bit, 2K
Option C:	9bit, 2K
Option D:	1byte, 3K
Q7.	Which of the flag is not present in 8051?

[Type text]

Option A:	zero flag
Option B:	Parity flag
Option C:	carry flag
Option D:	auxiliary carry flag
Q8.	The number of Instructions in RISC is ____ as compared to CISC.
Option A:	Less
Option B:	More
Option C:	Complex
Option D:	Variable
Q9.	How many times loop function runs in Arduino IDE:
Option A:	4
Option B:	1
Option C:	Forever
Option D:	5
Q10.	In Timer Control Register, Mode 1 uses
Option A:	8-bit timer
Option B:	16-bit timer
Option C:	32 -bit timer
Option D:	64-bit timer
Q11.	In Von-Nuemann architecture
Option A:	Data and instructions are stored in same memory
Option B:	Data and instructions are not stored in same memory
Option C:	Data is stored in memory
Option D:	Instructions are stored in memory
Q12.	LET memory location 25 have value 10h, location 35 have value 20h. After execution of following instructions what is the value of a and b. mov r0, #25h mov b, #60h mov a, @r0 add a, b
Option A:	70,50
Option B:	40,50
Option C:	70,60
Option D:	60,70
Q13.	It starts with a /* and continues until a */ What does this do?
Option A:	Loads a sketch
Option B:	Makes comments
Option C:	Compiles quicker
Option D:	Makes stars appear

[Type text]

Q14.	Which of the following is a 16 bit register of 8051?
Option A:	DPTR
Option B:	A
Option C:	B
Option D:	PSW
Q15.	The major drawback of RISC processors are
Option A:	Poor code density, non-executable x86 code
Option B:	High code density, non-executable x86 code
Option C:	Poor code density, executable x86 code
Option D:	High code density, executable x86 code
Q16.	External Access(EA) is used to permit _____
Option A:	Peripherals
Option B:	ALE
Option C:	Memory interfacing
Option D:	Power supply
Q17.	The _____ contains condition code flags, and the current mode bits.
Option A:	Current Program Status Register (CPSR)
Option B:	General Purpose registers
Option C:	LR
Option D:	PC
Q18.	Which is the default register bank selected after 8051 is powered on?
Option A:	BANK0
Option B:	BANK1
Option C:	BANK2
Option D:	BANK3
Q19.	The flags of 8051 are not affected by which of the following instructions?
Option A:	Arithmetic instructions
Option B:	Logical instructions
Option C:	Bit manipulation instructions
Option D:	Data transfer instructions
Q20.	DHT11 is _____ sensor.
Option A:	Proximity sensor
Option B:	Humidity sensor
Option C:	Touch sensor
Option D:	Pressure sensor
Q21.	The amount of time required for the scheduling dispatcher to stop one process and start another is known as _____
Option A:	event latency
Option B:	interrupt latency

[Type text]

Option C:	dispatch latency
Option D:	context switch
Q22.	Which of the following registers is associated with timer MODES of 8051?
Option A:	TMOD
Option B:	SCON
Option C:	PCON
Option D:	TCON
Q23.	Which flag is associated with serial communication of 8051?
Option A:	TI
Option B:	TF0
Option C:	TF1
Option D:	IE
Q24.	Peripheral Component Interconnect (PCI) Express interconnects which modules?
Option A:	Serial communication
Option B:	Wifi, Bluetooth, GSM cards
Option C:	Micro SD card
Option D:	Real Time Clock
Q25.	The Software Interrupt (SWI) is used to enter _____.
Option A:	supervisor mode
Option B:	User
Option C:	Abort
Option D:	Undef