Program: BE Biomedical Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: BMDLO7033 and Course Name: Embedded Systems

Time: 1 hour Max. Marks: 50

==========

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

Q1.	The cost of manufacturing each unit in an embedded system is called
Option A:	Engineering Cost
Option B:	Manufacturing Cost
Option C:	Marketing Cost
Option D:	Embedded Cost
Q2.	Time taken in days or months to develop a prototype and in house testing of a system is called
Option A:	Time to market
Option B:	Prototype development type
Option C:	Flexibility
Option D:	Production Time
Q3.	Changeability and Additions to the system is called as
Option A:	Flexibility
Option B:	Maintenance
Option C:	Prototype
Option D:	Time to Market
Q4.	Cost of one product is called
Option A:	Per unit cost
Option B:	Revenue
Option C:	Manufacturing Cost
Option D:	Profit
Q5.	In portable or hand held device such as cell phone, compared to 5V operation a CMOS circuit power dissipation reduces by ------ , in 2V operation
Option A:	$1/4^{th}$
Option B:	$1/5^{th}$
Option C:	$1/6^{th}$
Option D:	$1/7^{th}$
Q6.	---------- investigates the concurrent design of hardware and software components of complex electronic systems with the goal to optimize and/or satisfy design constraints such as cost, performance, and power of the

	final product
Option A:	System on Chip
Option B:	Embedded processors
Option C:	EDLC
Option D:	Hardware/software co-design
Q7.	Considering a component in a design is called as
Option A:	Abstraction
Option B:	Modular Design
Option C:	Mapping
Option D:	Programming
Q8.	---------- are associated with the embedded system before it can be put in operation.
Option A:	Non- Operational Quality Attributes
Option B:	Operational Quality Attributes
Option C:	Quality Attributes of embedded system
Option D:	Design Metric
Q9.	---------- is the ability to modify the system after its initial release, especially by designers who did not originally design the system
Option A:	Maintainability
Option B:	Flexibility
Option C:	Correctness
Option D:	Accuracy
Q10.	Which of the following memory is more quickly accessed
Option A:	RAM
Option B:	CACHE Memory
Option C:	Flash memory
Option D:	secondary memory
Q11.	logic levels of RS232 are
Option A:	same as TTL levels
Option B:	same as CMOS levels
Option C:	3 to 15 v plus and minus
Option D:	differential signaling
Q12.	which of them is a serial communication?
Option A:	UART, SPI and I2C
Option B:	PCI
Option C:	RS232
Option D:	PCIX
Q13.	what happens when a watchdog timer overflows?
Option A:	system shutdown

Option B:	system reset
Option C:	system enters sleep mode
Option D:	system executes nop instructions
Q14.	Division by zero detection by hardware is …….
Option A:	External hardware device interrupt
Option B:	Internal hardware device interrupt
Option C:	Software instruction related interrupt
Option D:	Software error related interrupt
Q15.	Which task swapping method does not require the time critical operations?
Option A:	time slice
Option B:	pre-emption
Option C:	Co-oeprative multitasking
Option D:	schedule algorithm
Q16.	Which of the following determines the next task in the time slice method of task swapping
Option A:	scheduling program
Option B:	scheduling application
Option C:	scheduling algorithm
Option D:	scheduling task
Q17.	Suspending a task after saving the needed parameters due to the requirement of inputs is said to be which task state?
Option A:	Idle/Created
Option B:	Ready/Active
Option C:	Running
Option D:	Blocked/Wait
Q18.	Which task state has the memory de-allotted to its structure?
Option A:	Ready/Active
Option B:	Running
Option C:	Blocked/Wait
Option D:	Deleted/finished
Q19.	Process which wants to access the shared resource acquires the system object as an indication to other process wanting the shared resource is called
Option A:	Semaphores
Option B:	Queues
Option C:	Scheduling
Option D:	Round Robin
Q20.	Semaphores that provides exclusive access to the shared resource by allocating the resource to a single process at a time is called
Option A:	Semaphore

Option B:	Binary Semaphore
Option C:	Counting Semaphore
Option D:	Access Semaphore
Q21.	A function that can be used with atomic instructions in that part of a function that needs its complete execution before it can be interrupted is called …….
Option A:	Reentrant function
Option B:	Circular Queue
Option C:	Circular Buffer
Option D:	Circular Buffer
Q22.	The SCL stands for a ---------- and this signal is always driven by the master device
Option A:	serial clock line
Option B:	Serial data line
Option C:	Sequential clock line
Option D:	Secondary clock line
Q23.	The serial data is sent along the USB in ---------, with opposite polarities on the two signal lines
Option A:	differential mode
Option B:	Non differential mode
Option C:	Common mode
Option D:	Synchronous mode
Q24.	Standby mode is one of the method of ----------.
Option A:	Power Saving
Option B:	Code Memory Saving
Option C:	Data Memory Saving
Option D:	Cost Reduction
Q25.	Make sure that you are not using two functions to do the same thing is called as ----------.
Option A:	Power Saving
Option B:	Code Memory Saving
Option C:	Data Memory Saving
Option D:	Cost Reduction

Program: BE Biomedical Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: BMDLO7033 and Course Name: Embedded Systems

Time: 1 hour Max. Marks: 50

==========

Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	B
Q2.	B
Q3.	A
Q4	A
Q5	C
Q6	D
Q7	A
Q8.	A
Q9.	A
Q10.	B
Q11.	C
Q12.	A
Q13.	B
Q14.	D
Q15.	A
Q16.	C
Q17.	D
Q18.	D

Q19.	A
Q20.	B
Q21.	A
Q22.	A
Q23.	A
Q24.	A
Q25.	B