University of Mumbai

Examination 2020 under cluster 4 (PCE)

Program: BE Mechanical Engineering
Curriculum Scheme: Rev2016/2012
Examination: Third Year Semester V/VI
Course Code: _____ and Course Name: ____

Time: 1 hour   Max. Marks: 50

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

Q1.	In ACVM embedded system is required to have RAM for storing
Option A:	To store the firmware of ACVM.
Option B:	For storing temporary variables and stack.
Option C:	For modification in prose amount, new advertisement of machine features needs to be changed.
Option D:	For keyboard inputs.
Q2.	In ACVM embedded system is required to have ROM for storing
Option A:	Display codes
Option B:	application codes and RTOS codes .
Option C:	Keyboard codes
Option D:	Welcome messages, date and birthday
Q3.	While creating data path in custom single processor design for any declared variable _____ are assigned.
Option A:	ports
Option B:	Functional unit
Option C:	Register
Option D:	Memory
Q4.	While creating data path in custom single processor design for each arithmetic operation _____ are assigned.
Option A:	ports
Option B:	Functional unit
Option C:	Register
Option D:	Memory
Q5.	Load and store architecture is applicable in
Option A:	CISC
Option B:	RISC
Option C:	Both CISC and RISC
Option D:	Neither CISC nor RISC DONE
Q6.	GCD processor is an example of

Option A:	Custom single-purpose processors Ans
Option B:	Standard single-purpose processors
Option C:	Math coprocessor
Option D:	I/O processor.
Q7.	Out of following, What's another name for Wi-Fi?
Option A:	801.12 networking
Option B:	801.22 networking
Option C:	802.11 networking
Option D:	802.33 networking
Q8.	What is full form of I2C?
Option A:	inter-IC
Option B:	intra-IC
Option C:	intel IC
Option D:	individual integrated chip
Q9.	SPI device communicates in _____.
Option A:	Simplex
Option B:	Half duplex
Option C:	Full duplex
Option D:	Multi duplex
Q10.	Bluetooth is a_____technology, in which devices or gadgets can be connected together.
Option A:	Wired LAN
Option B:	Wireless LAN
Option C:	VLAN
Option D:	ZLAN
Q11.	Cruise control in car relieves the driver from duty and the driver hands over the charge to the ACC, except following
Option A:	When road conditions are suitable
Option B:	When there are no strong winds or fog
Option C:	When there is no heavy traffic
Option D:	When in Adverse conditions
Q12.	Which out of following is not an input to the Automatic cruise control system?
Option A:	Present alignment of radar (or laser) beam emitter.
Option B:	Delay interval in reflected pulse with respect to transmitted pulse from emitter.
Option C:	Speed from speedometer
Option D:	Throttle position

Q13.	Which of the following is a UML modelling tool?
Option A:	Visual C++
Option B:	Fortron
Option C:	Rational Rose Enterprise
Option D:	Java
Q14.	For an embedded system, the quality attribute 'Evolvability' refers to_____
Option A:	portability
Option B:	Modifiability
Option C:	Malleability
Option D:	Response
Q15.	If the MTBF of a product is very high, it refers to _____
Option A:	High Availability
Option B:	High Reliability
Option C:	Association
Option D:	Confidentiality
Q16.	Which of the following is a structural thing in UML?
Option A:	Class
Option B:	Interaction
Option C:	State Machine
Option D:	Activity
Q17.	In a Digital Camera, the image is captured and converted to Digital form by
Option A:	Electrode
Option B:	Lens
Option C:	Charged Couple Device
Option D:	Multiplexer
Q18.	Huffman encoding is a _____ scheme.
Option A:	Maximum fixed-length encoding
Option B:	Minimum fixed-length encoding
Option C:	Minimum Variable-length encoding
Option D:	Maximum Variable-length encoding
Q19.	In real time operating system
Option A:	must be serviced by its deadline period
Option B:	kernel is not required
Option C:	all processes have the same priority
Option D:	process scheduling can be done only once task

Q20.	Which of the following is correct in real time?
Option A:	non preemptive kernels
Option B:	preemptive kernels
Option C:	preemptive kernels or non preemptive kernels
Option D:	neither preemptive nor non preemptive kernels
Q21.	Which one of the following is a real time operating system?
Option A:	Windows CE
Option B:	RTLinux
Option C:	VxWorks
Option D:	All of the mentioned
Q22.	._____is software that allows your computer to communicate with the hardware or any other device you want to install.
Option A:	USB
Option B:	plug n play
Option C:	API
Option D:	Driver
Q23.	There are multiple resources in a system,each having semaphore.The processes require more than one resource for their execution.They test on the semaphore before taking the resource.Which of the following problem illustrates the presence of a deadlock in the above situation.
Option A:	Bounded buffer problem
Option B:	Dining philosopher's problem
Option C:	Both A and B
Option D:	Deadlock cannot occur in above situation
Q24.	Which of the following statement true for Inter-process communication
Option A:	It is like a user defined procedure call
Option B:	It is like a user defined function call
Option C:	It is system call
Option D:	It is an API
Q25.	For which of the following scheduling policy we can expect the average waiting time to be the shortest
Option A:	First come first served
Option B:	Last come first served
Option C:	Longest job first
Option D:	Random selection of jobs

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

Q18.	C
Q19.	A
Q20.	B
Q21.	D
Q22.	D
Q23.	B
Q24.	B
Q25.	B