

**University of Mumbai**  
**Online Examination 2020**

Program: BE Electronics and Telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: ECCDLO7035 and Course Name: Embedded Systems

Time: 1 hour

Max. Marks: 50

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

Q1.	Under Maintainability quality attribute,' Printer not taking paper in spite of a full paper stack', come under
Option A:	Waste type of Maintenance
Option B:	Expensive Maintenance
Option C:	Corrective Maintenance
Option D:	Preventive Maintenance
Q2.	Which of following is NOT a name of model of EDLC(Embedded Product Development Life Cycle)
Option A:	Spiral
Option B:	Waterfall
Option C:	Short shelf
Option D:	Fountain
Q3.	Generalization relationship exists between two use cases in ULM when
Option A:	A use case derives from a base use case
Option B:	A use case derives from a base use case and specializes some of its inherited functionality
Option C:	A use case includes functionality of another use case
Option D:	No two use cases can be related
Q4.	A college has an online Library Management System. Who's the primary actor in UML diagram ?
Option A:	Director of the college
Option B:	Librarian
Option C:	Workers
Option D:	Students
Q5.	How many processes are present in level-0 or context diagram of DFG?

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Option A:	Zero
Option B:	one
Option C:	two
Option D:	three
Q6.	Single purpose processors are
Option A:	Designed specifically to carry out one particular task
Option B:	Flexible to perform any number of tasks
Option C:	Executes floating point instructions only
Option D:	Very costly
Q7.	Which of the following statement is true for von Neumann architecture?
Option A:	Shared bus between the program memory and data memory
Option B:	Separate bus between the program memory and data memory
Option C:	External bus for program memory and no bus for data memory
Option D:	External bus for data memory only
Q8.	Number of wires involved in serial communication as compared to parallel communication are
Option A:	Can not be predicted
Option B:	More
Option C:	Moderate
Option D:	Less
Q9.	Related to stepper motor, 'step angle' indicates
Option A:	Number of stator windings
Option B:	The minimum degree of rotation associated with single step
Option C:	Number of possible steps
Option D:	Angle by which we have to install stepper motor in system
Q10.	MOSI, MISO are pin names in
Option A:	SPI
Option B:	I2C
Option C:	MODBUS
Option D:	CAN
Q11.	In typical MODBUS message frame format, Address field is of length
Option A:	1 byte
Option B:	2 bytes
Option C:	3 bytes
Option D:	4 bytes

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Q12.	For real time operating systems, interrupt latency should be
Option A:	Minimal
Option B:	Maximum
Option C:	Infinite
Option D:	Dependent on Scheduling
Q13.	Which of following is NOT Real Time Operating System
Option A:	VxWorks
Option B:	Windows 7
Option C:	QNX
Option D:	PalmOS
Q14.	Which of the following could not be Task state?
Option A:	Running
Option B:	Blocked
Option C:	Suspended
Option D:	Empty
Q15.	Device driver is
Option A:	Software that acts as bridge between the Operating system and Hardware
Option B:	System hardware
Option C:	Port pin of device
Option D:	Hardware interface of device
Q16.	Which of following determines the execution sequence among tasks and the associated task's priority?
Option A:	Scheduling algorithm
Option B:	Ready list
Option C:	ISR
Option D:	Application Register
Q17.	The memory area which holds the program code corresponding to core OS applications/services is known as
Option A:	User space
Option B:	Shared memory
Option C:	Process
Option D:	Kernel space
Q18.	Which is not a part of software component of digital camera?
Option A:	JPEG Coding
Option B:	CCD Signal Processing code
Option C:	RAM

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Option D:	Device Drivers
Q19.	What is output of digital camera?
Option A:	Screen display of picture from file after decoding
Option B:	User control inputs
Option C:	color values of each picture in vertical rows of pixel in a picture frame
Option D:	Intensity and color values of unexposed picture in horizontal rows of pixels for offset correction in the row
Q20.	For remote access of ACVM (Automatic Chocolate Vending Machine), required is
Option A:	TCP/IP
Option B:	VGA port
Option C:	Mini-DVI port
Option D:	DB5
Q21.	CCD processor in digital camera is.....
Option A:	General purpose processor
Option B:	ASIP
Option C:	Single purpose processor
Option D:	CCD processor not present in digital camera
Q22.	Display the text with picture, flash start and stop and OS services such as inter Process Communication (IPC) are occurred in which layer of software architecture of digital camera?
Option A:	Application Layer
Option B:	System Layer
Option C:	Function Layer
Option D:	Base Layer
Q23.	Data memory of process hold
Option A:	Local variables
Option B:	Global variables
Option C:	Program instructions
Option D:	Program address
Q24.	The ability of operating system to have multiple programs in memory which are ready for execution is referred as
Option A:	Multiprocessing
Option B:	Multi-interrupting
Option C:	Multiprogramming
Option D:	Multitasking

These are sample MCQs to indicate pattern, may or may not appear in examination

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Q25.	Under the process scheduling context 'Waiting time' for a process is
Option A:	The time spent in 'Ready queue'
Option B:	The time between submission of a process and first response
Option C:	ISR execution time
Option D:	Task communication time